

PUBLISHED  
EVERY  
MONDAY

# Croplife

MIDWEST MARKETING EDITION

With Added Regional Circulation to the Midwest Marketing Segment

TOTAL CIRCULATION  
OVER 9,070 COPIES  
EACH WEEK  
BPA Member, Business  
Publications Audit

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL MANUFACTURER, FORMULATOR AND DEALER

Published by The Miller Publishing Co., Minneapolis, Minn.

Vol. 6

Publication at Minneapolis, Minn.  
Accepted as Controlled Circulation

MARCH 2, 1959

Subscription Rates:  
\$5 for 1 year, \$9 for 2 years

No. 9

## Senate Group Plans Investigation of Fertilizer Prices

**\$395,000 Available  
For Study of Pricing  
In Several Industries**

—See Editorial on Page 22—

WASHINGTON—Sen. Estes Kefauver (D., Tenn.) has authored a Senate resolution giving authority to the subcommittee on antitrust and monopoly of the Senate Judiciary Committee to make an investigation of prices in several industries, including the fertilizer industry.

An appropriation of \$395,000 has been made for the work of the subcommittee.

Private sources here believe that the Kefauver program will not get under way any earlier than next fall. They point out that it will take several months to obtain the necessary witnesses and data.

The Senate resolution is numbered S.R. 57. In a report accompanying the resolution, Sen. Kefauver said:

"The past two years' study by the antitrust and monopoly subcommittee shows that there are many instances of identical pricing where prices are set by the leader and followed by the rest of the industry."

Besides fertilizer, the subcommittee will look into pricing matters affecting bread, drugs, replacement parts for farm machinery, paper boxes, automobile financing, rubber tires and aluminum.

### 1958 Sulfur Report

WASHINGTON—The Bureau of Mines, U.S. Department of the Interior, reported that production of native and recovered sulfur amounted to 4,644,812 long tons and 619,594 long tons, respectively, in 1958 compared with 5,491,210 long tons and 519,078 long tons in 1957.

## Turfgrass Conference Visitors Told of Weed Control Progress

UNIVERSITY PARK, PA.—Over 35,000,000 acres of farmland were sprayed last year for weed control—more acreage than the combined total sprayed for disease and insect control—declared J. E. Gallagher of Amchem Products, Inc., during the 28th annual Turfgrass Conference Feb. 16-19 at Pennsylvania State University here.

Mr. Gallagher predicted that 1959 will be a good year for turfgrass weed control problems. He said several pre-emergence crabgrass control chemicals will be on the market. More information will be available on the residual of arsenicals and chlor-

## Two-Year Fertilizer Building Outlay to Total \$63 Million

WASHINGTON—New facilities for the production of fertilizer chemicals will be constructed in the U.S. during 1959 and 1960 at an estimated cost of \$63.2 million, the Manufacturing Chemists' Assn. said last week.

This includes \$22.2 million for projects already underway in four states and \$41 million for projects scheduled for early ground-breaking in six states.

According to the annual MCA survey, chemical producers in 1958 completed new fertilizer production facilities in 10 states at a cost of \$52.575 million.

Total estimated expenditures for these new installations during the three-year survey period, 1958-60, is \$115.775 million—all privately-financed.

California with a total of \$20.5 million is receiving the largest share of this construction. Following are Mississippi, \$16.8 million; Idaho, \$16 million; Washington, \$14.6 million; Louisiana, \$12.5 million; Delaware, \$11 million; Kansas, \$5.5 million; Arizona, \$5.2 million; Missouri, \$4.5 million; Arkansas, \$3 million; Utah, \$2.5 million; Florida, \$2.2 million; Alabama, \$1.2 million, and Oklahoma, \$200,000.

Over-all privately-financed chemical production facilities costing a record total of \$1.77 billion were completed in the U.S. during 1958. The previous one-year high of \$1.3 billion for completed construction was established in 1957.

The MCA said that an additional \$1.05 billion will be spent for projects now underway and \$464.09 million for projects scheduled for ground-breaking in the near future and completion before 1961. This brings total chemical plant construction to an estimated \$3.29 billion for the three-year survey period, 1958-60.

The nation's chemical producers will spend at least \$87 million to construct new laboratories in 1959 and 1960.

dane as well as their effect on turfgrass seedlings.

"You will begin to hear of 'invert emulsion' formulations of 2,4-D and 2,4,5-T and of improved methods of application," he stated. "More machinery will be designed for application of granular herbicides. Continued work with soil sterilants, grass killers and selective broadleaf control materials will add to the store of information needed to solve turfgrass weed problems."

Mr. Gallagher reminded conference delegates that they do not have separate problems of water, disease,

(Turn to TURFGRASS, page 21)

## Support Levels Expected To Create Good Climate For Plant Food Sales

By JOHN CIPPERLY

Croplife Washington Correspondent

WASHINGTON—Trade sources available here forecast a healthy demand for fertilizer materials from the farm community this crop year. Field reports indicate that increased farm inquiries and actual sales are now being reported from corn and cotton producing regions.

This information resulted from inquiries to the trade over the possible

effects of the U.S. Department of Agriculture decision to lower the levels of price supports for the small grain and oilseed crops.

Spotted instances of increased fertilizer tonnage come from South Carolina, Texas and North Carolina, but the over-all outlook is that volume will be well ahead of last year, influenced by the planting prospects for corn and cotton acreage in 1959.

Although it is too early now to pinpoint probable tonnage increases by specific types of fertilizer materials, trade sources here stated that gains in nitrogenous fertilizer materials would lead the list with a potential gain of 15% in 1959. Next in order would be potash sales increases by as much as 10% and phosphorus materials by about 8%.

A guarded and usually conservative source said that this prospective advance in sales tonnage did not necessarily mean higher profits to the fertilizer companies since it is believed that there are big spots of excess capacity in the fertilizer industry.

This excess capacity reflects the fact that while the fertilizer industry has made broad progress in educating the farm communities on the utility and cost cutting results from

(Turn to CLIMATE, page 20)

## Firm Acquires New Phosphate Holdings

MONTPELIER, IDAHO—The San Francisco Chemical Co. has acquired new holdings estimated to contain nearly 15 million tons of convertible phosphatic material at high level, assuring the company reserves in the Crawford-Leafee area for more than 40 years, D. L. King, president of the company, has announced.

The firm has taken control of 15 patented claims of the old U.S. Phosphate Co., Mr. King said, bringing to 25 the number of claims now held.

## Group Asks for More Pesticide, Fertilizer Machinery Research

WASHINGTON—The top engineering research need in crop production is for analysis of pesticide application equipment and methods, according to the U.S. Department of Agriculture Farm Equipment and Structures Research Advisory Committee which met here recently.

The most pressing need is for basic research to understand the factors affecting pesticide deposits, the committee said. There is evidence, it said, that the occasional failure of pesticides may be the result of shortcomings in application methods.

The committee also said that fertilizing equipment and practices need study. Such research should include applying fertilizer under mulch practices, bulk handling of fertilizer, metering seed and fertilizer and corrosion of equipment caused by agricultural chemicals.

### Inside You'll Find

What's New .....	10
Oscar and Pat .....	12
Over the Counter .....	14
Weed of the Week .....	16
Editorials .....	22
Advertisers' Index .....	23
Classified Ads .....	23

## Cyanamid of Canada Converting Plant To Natural Gas

MONTREAL—Natural gas soon will replace imported coal in the manufacture of ammonia and ammonium nitrate at the Welland plant of Cyanamid of Canada, Ltd., Dr. L. P. Moore, president of the American Cyanamid Co. subsidiary, has announced.

He said that a conversion program costing about \$5 million will increase the capacity of the plant and will result in a more balanced production. The plant is located in the province of Ontario, near Niagara Falls.

Dr. Moore said that the volume of production at Welland, coupled with the urea and ammonia production at the new Hamilton Bay plant, will be sufficient to supply all the foreseeable needs of Ontario and Quebec for nitrogenous fertilizers.

It is expected that the conversion program will be completed within 12 months. Cyanamid of Canada will use the gas direct from the pipeline as a basic material in the manufacture of ammonia.

J. A. Schmidlein is manager of the Welland plant.



**ALABAMA SOIL FERTILITY OFFICERS**—Shown above are officers and directors of the Alabama Soil Fertility Society, Inc. From left to right, front, are T. W. Allen, director, Tennessee Corp., Gadsden; Charles Summerour, secretary-treasurer, American Potash Institute, Montgomery; Frank Boyd, president, Virginia-Carolina Chemical Corp., Montgomery; A. T. Joiner, vice president, Virginia-Carolina Chemical Corp., Birmingham, and M. H. Conner, Eufaula Cotton Oil Co., Eufaula. Left to right, back, are J. Roy Pratt, Jr., Republic Steel Corp., Birmingham; J. E. Dorland, McMillan and Harrison Fertilizer Co., Mobile; K. B. Maddox, Greenville Plant Food Co., Greenville; George Williamson, Agriculture Chemical Service Corp., Montgomery; J. C. Gentle, Alabama Aggregate Co., Birmingham, and J. W. Morgan, Alabama By-Products Corp., Birmingham, all directors.

## Insect Topics on Agenda of Western Cotton Conference

PHOENIX—Are pink bollworms being whipped? What's new in cotton insect control?

These are two of five insect topics which will be discussed at the Western Cotton Production Conference at the Hotel Westward Ho here, March 3-4. The conference is being sponsored by the National Cotton Council and the Southwest Five-State Cotton Growers Assn.

The pink bollworm problem will be discussed by L. F. Curl, assistant director of the Plant Pest Control Division, U.S. Department of Agriculture, Washington, D.C. Dr. G. P. Wene, entomologist at the Cotton Research Center, Tempe, will speak on new developments in cotton insect control.

Three other speakers will cover specific areas under the general heading of "a good insect control program and pay-off." Extension service activities will be discussed by Dr. J. N. Roney, Arizona Extension Service entomologist. The insecticide industry representative will be F. Mike Svoboda of White Chemical Co., Phoenix, and the practical farming side will be covered by Ted Siek, ranch manager for J. G. Boswell Co., Litchfield Park, Ariz.

The conference also will hear where the industry stands on chemicals for producing hybrids and controlling fruiting in cotton. The subject will be covered by Dr. H. R. Carnes, plant physiologist, U.S. Department of Agriculture, UCLA, Los Angeles, and Dr. V. T. Walwood, plant physiologist, U.S. Cotton Field Station, Shafter, Cal.

New information on plant foods for cotton will be covered by Dr. T. C. Tucker, Arizona Experiment Station, Tucson, and Dr. Dick Bassett, U.S. Cotton Field Station, Shafter. Local host for the meeting is the Arizona Cotton Growers Assn. Some 500 farmers, educators, research workers and others interested in cotton production are expected.

## Ag Aircraft Short Course Dates, Plans Announced

BERKELEY, CAL.—A four-day agricultural aircraft short course, featuring a concentrated series of day and evening lectures will be offered on the Davis campus of the University of California March 3-6.

The California Agricultural Aircraft Assn. is sponsoring the Pilots' Training Course in conjunction with the university, and the training period is the result of many years of work by the CAAA.

## Heavy Borer Outbreak Possible in South Dakota

BROOKINGS, S.D.—Even though infestations of the European corn borer in South Dakota were comparatively light in 1958 and overwintering populations are low, this doesn't eliminate the possibility of a heavy infestation during 1959, says William Hantsbarger, entomologist for the state Agricultural Extension Service.

The populations during 1958 were not as large as expected because the second brood was smaller than anticipated. Mr. Hantsbarger noted that populations are now as low as they were in 1956. He emphasized that 1956 was followed by an infestation that was the second heaviest since the corn borer arrived in South Dakota in 1948. This could be repeated during 1959.

Mr. Hantsbarger said the greatest concentrations are now found in parts of Hanson, Davison and Hutchinson counties. The state average in 1958 was 91 borers per 100 plants. (Forty two counties were surveyed). This compares with 339 borers per 100 plants in 1957.

## Texas Farmer Instigates New Insect Control Plan

MIDLAND, TEXAS—B. W. Golladay, who began irrigating cotton 10 years ago, has devised a method to keep down insects and the area farmers are beating a path to his door.

After cotton plants emerge, he checks the fields regularly. After the first insects appear, he rigs up his tractors and puts on a heavy application of insecticides. Two days later he repeats the procedure, and then two to three days afterwards he puts on a third application.

He explains his method by saying that when a farmer starts poisoning, there are always half grown insects, young ones just hatching out and others still in the eggs.

"Spray once a week and you never completely get rid of them," he said. "They'll be doing some damage all the time. But three applications within a week wipe out the whole infestation, and the field is free of insects."

After these first three applications, Mr. Golladay goes over the field at five to seven day intervals until all insect danger is past. The last two years he has treated the fields at least a dozen or more times each season, but has lost no cotton to insects.

## TURF MEETING

ROANOKE, VA.—A tour, inspection of equipment and discussions of management problems will be featured at a spring turf meeting, March 26, at the Roanoke Country Club.

## Outstanding Colorado Corn, Sugar Beet Growers Honored at Ranch Congress

SAN FRANCISCO—Recognition is being given to 11 outstanding Colorado farmers at the National Farm and Ranch Congress banquet in Denver March 2, according to Dr. Richard B. Bahme, western regional director of the National Plant Food Institute.

"Of the 11 men, seven will be honored for exceeding 200 bu. of corn to the acre," Dr. Bahme said. "The other four achieved membership in the 10,000 lb. Sugar Beet Club for impressive sugar beet production records."

Production achievement awards are being presented to each grower at the banquet by the National Plant Food Institute. Dr. Bahme has been cooperating with Rodney Tucker of Colorado State University Extension Service in setting up this recognition program.

The top corn growers are:

Charles Pinger, Grand Junction, who achieved the yield of 262 bu. of corn per acre, the highest recorded yield in the program's history. He applied 30 tons of manure per acre, in addition to 120 lb. nitrogen and 101 lb. phosphorus. He planted the corn in 30 inch rows, and irrigated seven times. His previous crop also was corn.

Dale Richardson of Wiggins, the next highest producer, who averaged 222.1 bu. an acre in his contest entry of 20 acres. He obtained a stand of 25,000 plants an acre in 32-inch rows. His previous crop was corn. His fertilizer program included 15 tons manure an acre, 67 lb. nitrogen and 90 lb. P<sub>2</sub>O<sub>5</sub> at planting time—followed by 67 lb. nitrogen in May and an extra 40 lb. in the water during July.

Henry J. Gerkin, another Grand Junction farmer, who scored 220.9 bu. per acre. He planted corn on a field that had been in alfalfa, then applied 60 lb. of actual nitrogen, 43 lb. of actual phosphorus. The corn went into 30 inch rows, and was irrigated four times.

Lon Campbell, also of Grand Junction, who made an eight-acre entry averaging 213.4 bu. per acre. Fertilizer applications included manure and 60 lb. of nitrogen and 43 lb. of phosphorus an acre. He used four irrigations, planted in 30 inch rows.

Roy E. Mauch from Lamar in the Arkansas Valley, who produced a yield of 212.98 bu. an acre. The ground had been in alfalfa for four years before it was broken for the 1958 corn crop. He obtained a stand count of 18,000 plants per acre in 38 inch rows. Three irrigations were applied during the growing season.

Fred Fiebig of Ft. Morgan who was the first member to enter the 200-bu. per acre class when he achieved a yield of 207 bu. corn an acre in 1957. His program featured an application of 25 tons manure and 75 lb. nitrogen per acre; a stand count of 23,400 plants per acre; 32 inch rows and seven irrigations.

W. A. Long, a Clifton grower, who was the seventh to gain membership in the 200 bu. Corn Club. His yield of 202.4 bu. per acre was made on land which had been in alfalfa. He applied 60 lb. nitrogen and 43 lb. phosphorus per acre. The corn was planted in 30 inch rows and given four irrigations.

The beet growers receiving recognition are as follows:

Edward Helmbuck, on a farm near Evans, who turned out the second highest production ever recorded in Great Western Sugar Co.'s territory. His average yield was 31.2 tons an acre, with a sugar content of 17.6%. Thus, sugar production averaged 10,960 lb. an acre. For his fertility program, Mr. Helmbuck applied 15 tons of manure, 147 lb. nitrogen and 106 lb. P<sub>2</sub>O<sub>5</sub>. An additional 30 lb. nitrogen was applied in the second of the 11

irrigations. The stand at harvest was 109%.

Byers C. Clark of Greeley, who produced 29 tons beets an acre. With a 17.5% sugar content, the beets yielded 10,162 lb. sugar an acre. Plant nutrients were supplied by 15 tons manure and 125 lb. 21-53-0 fertilizer. Ten irrigations were made during the growing season.

Edwin Carl Cook, a 19-year-old Wiggins high school senior, who produced 27.64 tons beets an acre in 1957. The sugar content was 18.4%, for a total output of 10,150 lb. sugar an acre. He used 80 lb. nitrogen an acre on June 15, followed by an additional 30 lb. nitrogen in the irrigation water on June 15. The first irrigation was on July 6, and repeated every 15 days—for a total of six irrigations. The harvested stand count was 120 beets per 100 feet of row.

Harold Stark of Ft. Morgan who produced 10,089 lb. sugar, based on 29.1 tons of beets per acre with an average sugar content of 17.3%. He applied 100 lb. nitrogen and 70 lb. P<sub>2</sub>O<sub>5</sub> an acre. There were six irrigations, and the harvested stand was 121 beets per 100 feet of row.

Among the guests at the Production Achievement Award Banquet will be representatives of the fertilizer industry, hybrid corn companies, sugar beet processors, county agents, bankers' agricultural representatives, farm press and radio personnel, in addition to farmers and university personnel.

## J. Albert Woods Resigns As President of CSC

NEW YORK—At a meeting of the board of directors of the Commercial Solvents Corp. Feb. 16, J. Albert Woods resigned as president and director of the corporation. He will continue to serve the company in a consultative capacity until the end of 1962.

Maynard C. Wheeler who is senior vice president and who has been a member of the board of directors of the company since 1950 was elected acting president.



Carl E. Schauble

**NEW ASSIGNMENT**—Carl E. Schauble, field representative for E. I. du Pont de Nemours & Co., nitrogen products division, has been assigned to southern Virginia and the Carolinas, the company announced. Mr. Schauble will headquarter in Charlotte, N.C. He is a graduate of the University of Illinois, with a bachelor's degree in ag science, and Purdue University, with a master's in agronomy. He replaces Gene Baenen, who has been assigned to the industrial chemicals section of the company's polychemicals department.



## Accomplishment Report

### POTASH COMPANY OF AMERICA

Two major sources of Potash Supply—two mines and refineries—two originating railroads.

Our present facilities now enable us to give customer service not approached by any other company.

New 60% Standard Muriate  
New 60% Special Granular Muriate  
New 60% Coarse Granular Muriate  
Sulphate of Potash  
Chemical Muriate — 99.9% KCL  
minimum

Quick Service—High Quality  
Phone, write, telex, or wire us  
Phone STerling 3-4990, Washington  
TWX No.—WA-331



### POTASH COMPANY OF AMERICA CARLSBAD, NEW MEXICO.

General Sales Office . . . 1625 Eye Street, N.W., Washington, D.C.  
Midwestern Sales Office . . . First National Bank Bldg., Peoria, Ill.  
Southern Sales Office . . . Candler Building, Atlanta, Ga.

## TVA to Provide Acid for Making Liquid Fertilizer

KNOXVILLE—Tennessee Valley Authority is supplying superphosphoric acid to fertilizer manufacturers who want to use it experimentally to produce liquid fertilizer by a new TVA process.

TVA said that the number of plants producing liquid fertilizers has more than tripled since 1955 when there were 35. It cites a recent market survey which indicated that a fifth of the farmers in midwestern states plan to change from solid to liquid fertilizers, that half of them plan to increase their use of it, and only 17% expect to use less, TVA said.

Charles H. Young, TVA's manager of chemical engineering, noted that

although there has been a large percentage increase of production and use of liquid fertilizers, the actual tonnage is still small, accounting for only about 1% of all mixed fertilizers in the central and eastern states.

The phosphorus content of liquid fertilizers comes from phosphoric acid made by the electric furnace process in most instances, but the supply of electric-furnace acid is limited and more costly than wet process acid.

TVA points out that the addition of some of its new superphosphoric acid to the wet-process acid is a promising way to overcome problems caused by the settling of solid impurities in storage tanks, pipes and nozzles. The engineers state that phosphoric acid is more highly concentrated than is the commercial acid.

If trial use of the superphosphoric acid for this purpose proves successful, TVA says, it expects commercial producers of furnace acid to become

interested in supplying superphosphoric acid to liquid fertilizer manufacturers.

## Fertilizer Use in Texas Up 4% in Last Half of '58

COLLEGE STATION, TEXAS—Fertilizer use in Texas during the last half of 1958 increased slightly more than 4% over the same period of 1957, reports J. F. Fudge, state chemist.

This increase represents almost a 9,000 ton increase over the 213,800 used during the last half of 1957. The big increases in the fall of 1958 were primarily in anhydrous ammonia and 16-20-0. These materials accounted for almost one half of the total fertilizer materials sold.

The big increase in mixed goods was primarily in the 1:2:1 grades. The largest seller was 10-20-10, which accounted for about one third of the total mixed fertilizer sales.

## Alfalfa Weevil Infests Nearly All of Virginia

BLACKSBURG, VA.—A. P. Morris, entomologist with Virginia Polytechnic Institute here, reported that the alfalfa weevil has been estimated to infest approximately 245,000 of the total 280,000 acres of alfalfa in the state and controls were applied to about 195,000 of these acres during 1958.

The net value of control was estimated to be \$2,652,000.

On the 50,000 acres infested but not treated, the species was too light to justify control, but a part of this acreage will require control this year, Mr. Morris said.

Infestations were found in four additional counties during 1958, leaving only six extreme southwestern counties uninfested. Two of these have little alfalfa.

## Connecticut Lawn Soil Tests Up 'Substantially'

NEW HAVEN, CONN.—The Connecticut Agricultural Experiment Station records show that of 4,681 soil samples analyzed for available plant food content at the station in 1958, 2,751 represented areas used or to be used for lawns, baseball parks, football fields, golf courses, roadside areas and similar uses. The number of samples in the "lawn" group was substantially more than in 1953.

Five years ago pastures and farm crops, market gardens, and home gardens, in that order, followed lawns as the principal sources of soil to be analyzed. In 1958 ornamentals were in second place, ahead of all of the rest, although the number of samples from home gardens stayed about the same. The number of samples from cropland soils fell during the five year period.

At the tobacco laboratory of the station in Windsor, tobacco farm soil samples continue to outnumber those from residential properties. Samples from commercial farms, however, were also lower in 1958 as compared with 1953, and samples from residential plots were higher.

## Flintkote Plans to Acquire Blue Diamond Operations

SAN FRANCISCO—Flintkote Co. announced it plans to acquire Blue Diamond Corp. of Los Angeles, a West Coast gypsum producer, by issuing one new share of Flintkote common stock in exchange for 1.87 shares of Blue Diamond.

The proposal has been approved by directors of the two firms but has yet to be acted on by stockholders.

Blue Diamond, whose stock is traded on the Pacific Coast Stock Exchange had sales of \$19 million in 1957. It operates a gypsum mine and mills near Las Vegas and is in the sand and gravel business in southern California.

## Chemical Meeting Set

WASHINGTON — Transportation practices, regulation and packaging of chemical products will be reviewed at a symposium April 29-30 at the Cleveland, Ohio, Engineering and Scientific Center. The symposium is sponsored by the Manufacturing Chemists Assn.'s chemical packaging committee.

A number of new packaging and transportation developments will be reviewed in detail for the first time on the program, according to the association. Registration for the event will be open to all interested persons.

Four panel sessions and two luncheon meetings are scheduled. Luncheon speaker on April 29 will be Charles A. Webb, commissioner of the Interstate Commerce Commission. Vice Admiral A. C. Richmond, commandant, U.S. Coast Guard, will address the luncheon group April 30.



Mr. George Fangman of Seneca, Kansas, his son, Eugene, and (right) Mr. Andy Haverkamp, the Mathieson dealer in Seneca. Mr. Fangman has been using AMMO-PHOS high-analysis fertilizers since 1953 . . . and with consistently good results.

## "Best oats I have ever grown"

That's what Mr. Fangman says about his 1957 oat-silage crop. "Since I started using AMMO-PHOS, my oats have always been better, but this crop was the best, thanks to 100 lbs. per acre of AMMO-PHOS 16-20-0 and a good season."

Mr. Fangman considers AMMO-PHOS the best handling fertilizer that he has ever used—easiest to apply, dust-free, and uniformly pelletized so that it doesn't bridge or stick in the drill.

"The fact that it is more water-soluble than ordinary fertilizers must be the reason for the

AMMO-PHOS® is a trademark

good results I get," Mr. Fangman adds. "On my wheat, for example, I used AMMO-PHOS 13-39-0 as a starter, and averaged 55 bushels. That's tops for around here. I am really sold on AMMO-PHOS for all my crops."

Mr. Fangman has proved to himself that he does better with high-analysis AMMO-PHOS. You can do the same. See your Mathieson dealer before spring planting. An analysis is available for every crop and soil condition.

AMMO-PHOS Fertilizers . . .  
Anhydrous Ammonia . . .  
Pesticides . . . Irrigation Systems



OLIN MATHIESON CHEMICAL CORPORATION  
PLANT FOOD DIVISION • LITTLE ROCK, ARKANSAS

5867-B

Dealers  
who sell



Mathieson  
products



have  
more  
satisfied  
customers







**DECORATED**—Georg K. Thestrup, acting consul general of Norway in San Francisco, is shown above presenting a Knight's Cross, First Class, of the Royal Order of St. Olav, to Wilson Meyer, president of Wilson & Geo. Meyer & Co., on behalf of King Olav V of Norway. The decoration was bestowed in recognition of Mr. Meyer's activities in promoting friendly trade and cultural relations between Norway and the West Coast of the U.S.

### Smith-Douglass Reports Half-Year Sales Rise

NORFOLK, VA.—Smith-Douglass Co., Inc., reported net sales of \$16,211,871 for the six months ended Jan. 31, as compared to \$13,970,745 for the same period last year.

Net income increased from \$285,458 in 1958 to \$856,388 for the current year. Earnings per common share for the six months were 82¢, compared to 25¢ for the same period last year.

W. Farley Powers, secretary, said in the report to stockholders that operating results for both the fertilizer and chemical divisions have been at levels regarded as reasonably satisfactory. He said Texas City Chemicals, a wholly owned subsidiary, has generated profits for the past several months substantially comparable to expectations.

Attention was called to the fact that the increase in earnings for the six months does not denote the probability of an increase in like degree at year-end.

### Penick Consolidates Domestic Operations

NEW YORK—The domestic operating activities of S. B. Penick & Co. here have been consolidated into three divisions, according to an announcement by Albert D. Penick, executive vice president. All three divisions carry new designations.

The NYQ chemical division replaces the New York quinine chemical works division and will include antibiotics as well as the present line of fine and industrial chemicals.

The botanical and allied products division encompasses the company's activities in botanicals and their derivatives; drug extracts; essential oils, flavor and perfume compounds; gums, spices and others.

The farm chemical and insecticide division has added feed grade antibiotics to its previous list of specialized chemical and insecticide items.

### Mark Means Co. Buys Idaho Farm Supply Firm

LEWISTON, IDAHO—Mark Means Co., Inc., dry fertilizer, feed and seed firm, has purchased the Columbia Farm Supply operation here from Phillips Petroleum Corp., according to Guy Storey and Roger Allis, company managers.

Columbia has been operated by Phillips since Oct. 15. The operation was established here in 1954 by McCall Farm Chemical.

Lee Birdsell, sales and service manager here since 1956, will remain with the company.

### W. J. Magers Named SunOlin Superintendent

PHILADELPHIA—Appointment of W. J. Magers as general superintendent of SunOlin Chemical Company's proposed urea plant has been announced by James I. Harper, SunOlin president.

In his new post Mr. Magers will be in charge of the operation of the 73,000 tons-per-year urea plant scheduled for completion in late 1959. While the plant is under construction, he will serve as an operating consultant to the SunOlin engineering group. The general contractor will be M. W. Kellogg Co., New York.

Mr. Magers started his career as a process engineer in Sun Oil Co.'s research and development laboratory at Marcus Hook, Pa. in June, 1950. Four years later he became a group leader in the technical service division and then joined the operating staff of the company's refinery at Marcus Hook. Promoted to plant foreman in July,

1957, he was named operating assistant last April.

Mr. Magers attended the Missouri School of Mines and then transferred to the University of Illinois where he was graduated in 1950 with a bachelor's degree in chemical engineering.

### Wilson & Geo. Meyer Move Portland Offices

SAN FRANCISCO—The Portland office of Wilson & Geo. Meyer & Co., western distributors of agricultural and industrial chemicals, will occupy new quarters at 1430 S.W. Clay Street, Portland, effective March 2, announced C. S. Culley, the firm's Portland manager.

The move, Mr. Culley said, is to facilitate handling the firm's increased business in the Northwest, to provide more parking facilities for customers and to give the enlarged office staff more room. The office will have a new telephone number, CAPI-tol 8-2388.

### Increasing Use of Gibrel Forecast

FRESNO, CAL.—Large acreages of California grapes will be produced this year with "Gibrel"—the plant growth regulator developed by Merck & Co., Inc., chemical division, Rahway, N.J. This announcement was made here by company officials, on the eve of a special one-day "Gibrel" workshop.

With this increased use of "Gibrel" in vineyards, the Merck technical service in that area will be expanded. Two Merck technical representatives, Charles M. Gates of San Jose, Cal., and Don Crawford of Upland, Cal., are working with California growers to outline 1959 plans.

"Last year scores of growers planted over 1,000 acres of Thompson Seedless grapes, using 'Gibrel' in their crop production program," said Jack (J. W.) Kennady, Merck plant products marketing manager, from Rahway. "This year, use of 'Gibrel' was put on a commercial basis.

# In 1958

# one ton feed grain

# per acre

*US farmers raising feed and grain in 1958 produced a ton of feed grain per acre—25% above the 1952-1956 average.*

*SUCCESSFUL FARMING farmers are the country's best—and farm a total of 352 million acres!*

SF farmers planted 58% of all US corn, and 46% of US wheat (1956 figures). Big production gives the average SF farm subscriber big income—estimated average at more than \$10,000 annually, for the past decade, and at all-time high in '58!

SUCCESSFUL FARMING's circulation is selective—heavily concentrates among the nation's top bracket farmers. SF has a minimum of waste; 87% of its 1,300,000 subscribers live on, own, or operate a farm.

SF delivers influence—based on 56 years of service! Local dealers will gladly tell you of SF's influence in their own territory.

For maximum fertilizer sales in 1959, you'll want SUCCESSFUL FARMING! The nearest SF office will give you data and detail about the greatest fertilizer market and medium.



MEREDITH PUBLISHING COMPANY, Des Moines...with offices in New York, Chicago, Detroit, St. Louis, Philadelphia, Cleveland, Atlanta, Minneapolis, San Francisco, Los Angeles

## USDA Committee Gives Priority to Weed Control Study

WASHINGTON—Weed control research is a pressing need to achieve efficient production of soybeans, peanuts, flax, sesame, safflower and other oilseed crops, according to the U.S. Department of Agriculture's Oilseeds and Peanut Research and Marketing Advisory Committee. The committee held its annual meeting at New Orleans recently.

Basic and applied research should be done, according to committee members, on weed-crop relationships involving pre-emergence chemical treatments; to develop the best herbicide rotation, and to develop the best uses of herbicides in combination with cultural, crop rotation and biological control methods.

Basic studies of soybeans and peanut physiology also rated a high priority from the committee. An understanding of the physiological reasons for the failure of soybeans to respond to direct applications of fertilizer in some growing areas might be reached by such research, the committee said.

## Cash Donations Given For Ag Science Research

BERKELEY, CAL.—The division of agricultural sciences at the University of California received only two cash donations to promote research in the field of agricultural chemicals in January, as most of the grants were earmarked for other agricultural projects.

These two gifts, however, do not reflect the total value of all grants, as some 12 to 15 firms assisted various studies through the donations of chemicals themselves. The two cash grants were both made by the California Spray-Chemical Corp., one in the amount of \$2,000 for research on insecticides on the Davis campus, and the other for \$1,000 for research on fungicides on the Riverside campus.

Other donors included Abbott Laboratories, Chemical and Pigment Co., Dow Chemical Co., E. I. du Pont de Nemours and Co., Inc., the Garland Co., Jack Wilson Chemical Co., Monsanto Chemical Co., Naugatuck Chemical Co., Division of U.S. Rubber Co., Oasis Chemical Co., Pennsalt Manufacturing Co., Shell Chemical Corp., and the Stauffer Chemical Corp.

## Baylor Soil Testing Lab Celebrates 4th Birthday

SEYMOUR, TEXAS—The Baylor Soil Testing Laboratory, now starting its fifth year, has analyzed nearly 2,600 soil samples from 44 Texas counties and a few in Oklahoma, New Mexico, Nevada, Colorado and California. The station is in charge of Roy McClung, county agent, and under the over-all supervision of the state extension chemist.

Soil testing has gained added importance due to the increase of irrigation in Texas, according to the county agent. Not only will a soil analysis help to determine what fertilizer to use, he says, but it will save the thousands of dollars spent each year for the wrong kind or improper ratio of fertilizers.

## John Wiley in New Central Farmers Post

CHICAGO—John Wiley has assumed the responsibilities of phosphate products sales manager, Central Farmers Fertilizer Co. In this capacity, he will manage the sales and services of all Central Farmers phosphate products, and all TVA materials and programs.

Mr. Wiley came to Central Farmers in February, 1957, from TVA. He organized and, until a short time ago, supervised the Hastings Office, which distributes the nitrogen production of St. Paul Ammonia Products, Inc.

## Employment Rise Noted In California Chemicals

SAN FRANCISCO—Employment in chemical manufacturing industries rose slightly between November and December to narrow the differential suffered during most of 1958.

The number of wage and salary workers in the state climbed from 38,600 to 38,800 between the final two months of the year, as compared with a drop during the same period of 1957 from 39,600 to 39,300. The figures are estimates of the division of labor statistics and research of the California State Department of Industrial Relations.

The rise went contrary to employment figures as a whole, which registered a decline in manufacturing employment in December.

The production worker segment increased their earnings fractionally. The average weekly income among this group went up from \$102.09 to \$103.98 between the two months, as

compared with \$98.56 for December of 1957.

Hourly earnings increased on the average from \$2.48 in November to \$2.51 in December, as compared with \$2.42 the year before. The length of the work week was, respectively, 41.3 hours, 41.1 hours, and 40.8.

## APPOINTED ASSISTANT

MIDLAND, MICH.—Fielding H. Yost, Jr., manager of the Dow Chemical Co.'s Cleveland sales office, has been advanced to the position of assistant to the director of corporate relations. He will be located at the company headquarters here. Mr. Yost's appointment was announced by Donald Williams, vice president and director of corporate relations. Simultaneously, the promotion of Thomas M. Gow to succeed Mr. Yost as manager at Cleveland was announced by Donald K. Ballman, director of sales. Mr. Gow has headed plastics sales at Cleveland for the past six years.

## Mite Research

ITHACA, N.Y.—Nearly \$175,000 has been granted to a team of agricultural scientists at Cornell University by the National Institutes of Health for intensive research on mite resistance. Recipients of the research grant to be used over a five-year period are entomologists and plant breeders in the New York State College of Agriculture: Dr. John Naegele, economic entomologist; Dr. James E. Dewey, toxicologist; Dr. Mathias H. J. Weiden, insecticide chemist; Dr. Roger Young, insect biochemist, and Dr. Herbert Everett, geneticist.

## NEW LABORATORY

NEW HAVEN, CONN.—The Connecticut Agricultural Experiment Station is now occupying Slate Laboratory, its new building. The structure, equipped for research in the plant sciences, houses research workers in the fields of forestry, genetics, soils and climatology and biometry.

# NEW FERTILIZER DISCOVERY COSTLY RETURNS OF CAKED

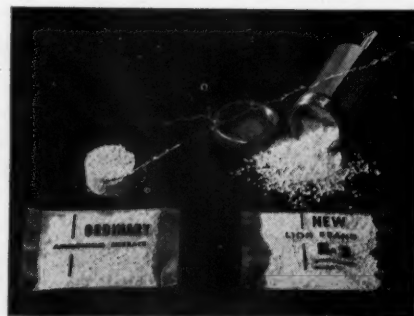
Monsanto farm researchers  
tested New Lion E-2  
all over the U. S. A. . .

Amazing New  
**LION E-2**  
Ammonium Nitrate  
just would  
not cake!

THE HOTTEST PLACE . . . NO CAKING!  
Phoenix, Ariz. Average high temp.: 118°F.

WE GUARANTEE IT WILL NOT CAKE IN YOUR PLACE . . . or on your customer's farm. You and your customers now get a prilled ammonium nitrate fertilizer that won't cake in the bag under any storage conditions! No other ammonium nitrate can match New Lion E-2 for noncaking, dust-free performance.

NEW SUPER-DENSE LION E-2 GIVES YOU prills of uniform size, 50% harder for dust-free handling and no loss in ground or air application. Super-density puts 20% more material in spreader, means less handling, storage and labor.



TEST IT YOURSELF. This hand compression chamber creates pressures up to 600 lbs. per sq. inch, but it can't cake Lion E-2. Your Monsanto salesman will show you how to compare Lion E-2 with any other ammonium nitrate you carry.



## Light Borer Numbers Seen for Minnesota

ST. PAUL, MINN.—Corn borers this summer may be less of a problem in Minnesota than they have been for 12 years.

John Lofgren, extension entomologist at the University of Minnesota, and J. R. Sandve, entomologist for the Minnesota Department of Agriculture division of plant industry, base that prediction on a fall 1958 survey of borer infestation.

That survey showed a state average of 16 borers per 100 corn plants—lowest count since the first complete survey in 1947. Average counts in recent years have been 83 per 100 plants in fall, 1957; 58 in 1956; and 96 in 1955. Worst ever recorded was 340 borers per 100 plants in 1949—a year in which farmers lost \$40 million through borer attacks on corn.

Highest average count for any region in the 1958 fall survey was 46 borers per 100 plants in southwestern counties. Lightest count was 3 per

100 plants in the east central area.

The entomologists warn that low infestations in recent years do not mean the borer problem is over. Minnesota farmers still lose several million dollars annually because of these pests, and a few fields had heavy infestations in 1958 even though the average was low. If the weather were to be especially favorable to borers—such as high humidity and mild temperatures when the borers are in the "pupa" and moth stages—the infestation could be much worse.

Average borer counts per 100 plants in other surveyed areas were: south central, 16; southeast, 6; west central, 23, and central, 10. Counties in the extreme north were not surveyed.

## RESIGNS POST

LEXINGTON, KY.—Dr. Frank J. Welch has resigned as a director of the Tennessee Valley Authority to return to his former post as dean of the college of agriculture and home economics, University of Kentucky.

## International Pest Control Meeting Set for London

LONDON—Leonard Hill Ltd., London, announced that the next International Crop Protection and Pest Control Exhibition will be held Dec. 9-11 at the Seymour Hall, Marylebone, London.

According to Leonard Hill Ltd., the aim of the exhibition is to cover all aspects of crop protection and pest control.

## LEASES LAND

MANHATTAN, KANSAS—Eighty acres of irrigated land has been leased northwest of Leoti, Kansas, to expand the research work of the Kansas State College branch experiment station at Tribune, announced Glenn H. Beck, director of state agricultural experiment stations. Though the land is leased on an annual basis to conform with state regulations, the irrigation work is not expected to be of a temporary nature, Mr. Beck said.

## Fourth Quarter Surge Nets California a New Fertilizer Sales Record

SAN FRANCISCO—A major surge in fertilizer sales during the fourth quarter of the year recently ended put 1958 way over the top and established a new sales record for a calendar year in California.

The gain between the fourth quarters of 1957 and 1958 was approximately 10%—from 225,490 tons to 245,738 tons—reports the Bureau of Chemistry of the California State Department of Agriculture. This, combined with a strong second quarter, more than made up for the decline felt during the first and third quarters of the year.

The final estimates for 1958 indicated a substantial gain of about 25,000 tons, or about 2%, from 1,105,453 in 1957 to 1,130,344 during 1958.

The mixed dry fertilizer group managed to maintain its lead over ammonia solution 20-0-0 as the leader of some three dozen chemical formulas offered for sale in the state. It ended the year with a reported 241,098 tons, as compared with 220,283 tons during 1957. The second place holder, 20-0-0 dropped during the year from 220,300 to 211,296, but during both the third and fourth quarters showed gains on the dry fertilizers lead established during the first half of the year. The final quarter figures for 20-0-0 were set at 48,598 tons, and for dry fertilizer at 45,330.

In third place, and the only other mixture selling above 100,000 tons, was ammonium sulfate, rising from 163,230 tons to 167,577.

Mixed fertilizers, liquid, climbed from fourth to third, overtaking anhydrous ammonia. The former sales figures rose from 70,770 tons to 79,054; while the latter dropped from 81,262 to 72,555 for the year.

The next several place holders were in the same relative positions. Fifth superphosphate, normal, rising from 60,216 to 63,585; sixth, ammonium phosphate-sulfate 16-20-0, from 56,347 to 58,436, and seventh, ammonium nitrate, down from 47,475 to 44,108.

Eighth and ninth positions were reversed as ammonium nitrate solution 20-0-0 made the greatest relative gain between the two years—almost a 50% rise from 26,790 to 37,210; while calcium nitrate remained almost stationary: 29,694 and 29,463.

The next several chemical groups in order are superphosphate treble, up from 17,407 tons to 19,126; urea, 22,794 and 22,033; sewage sludge activated, down from 20,609 to 15,085, the largest relative drop; ammonia-ammonium nitrate solution 40-0-0 up from 10,705 to 12,186, and ammonium phosphate 11-48-0 holding at 10,202 and 10,195.

Breaking down the dry fertilizer group, top position during the fourth quarter was taken over by 10-10-10, rising from 3,648 tons to 4,637; while 10-10-5 dropped from 3,746 to 3,524. Third place was held by 8-8-4, despite a drop from 2,415 to 2,141, and 16-20-0 dropped from 2,514 to 1,371 during the fourth quarter.

Among agricultural minerals, gypsum again accounted for about 90% or more of total sales—881,053 tons out of the annual total of 966,895. This was a substantial jump from 1957, when the corresponding figures were 694,493 for gypsum and 787,589 total.

Sewage sludge dropped between the two years from 35,467 to 33,583, and soil sulfur climbed slightly from 14,818 to 16,845.

## KENTUCKY MEETING

LEXINGTON, KY.—The 1959 annual Kentucky fertilizer conference has been set for July 29 at the Guignol Theatre, University of Kentucky campus, Lexington, announced Bruce Poundstone, head of the department of feed and fertilizer, Kentucky Agricultural Experiment Station.

# ENDS COMPLAINTS AND AMMONIUM NITRATE!



**THE WETTEST PLACE... NO CAKING!**  
Mobile, Ala. 67.57 in. rainfall per year.



**THE COLDEST PLACE... NO CAKING!**  
Bismarck, N. D. Average low temp.: -44°F.



**NEW MOISTUREPROOF BAG** of tough polyethylene keeps fertilizer dry and free-flowing until used. Re-usable bags have dozens of uses, help increase your volume on New Lion E-2. Also available in new polyethylene-lined multiwall bags.

## NEW LION E-2\*

TRADEMARK OF MONSANTO CHEMICAL CO.

**Always stores... Always pours**



**Monsanto**

ST. LOUIS 66, MO.

# Great 1959 **Hi-D** AMMONIUM NITRATE program gives you 5 helping hands!

## ① BIGGEST OUTDOOR EVER



— with powerful four-color billboards dominating the rural scene at 710 locations in 8 key states.

## ② BIGGEST TELEVISION EVER

— with an intensive 10-state, 13-week campaign launched from 14 TV stations.



## ③ BIGGEST RADIO EVER



— using 67 stations to blanket 15 states with the Hi-D story for a solid 13 weeks.

## ④ DYNAMIC 4-COLOR ADVERTISING



— in "Farm Journal" . . . "Capper's" . . . "Progressive Farmer" . . . and "Farm & Ranch" for a whopping delivery of over 17,000,000 sales messages about Hi-D.

## ⑤ POWERFUL POINT OF SALE



— with four-color window banner, counter displays, samples, consumer folders and technical data service.

The 1959 Hi-D Program is the soundest and sellingest you ever benefited from. And — every ad emphasizes the mixed goods you sell, tells your customers that mixed fertilizer comes first, then the supplementary boost of Hi-D.



**COMMERCIAL SOLVENTS CORPORATION**  
STERLINGTON, LA. • ST. LOUIS, MO. • ATLANTA, GA. • TERRE HAUTE, IND.





## Recognition of Suburban Buying Potential Reaps Profits for Kansas Dealer

By JESS BLAIR  
Croplife Special Writer

The rapid spread of the city into nearby farming land caused Charles A. Edmondson of Wichita, Kansas, several worries when the trend started. Yet today he sells more fertilizer in a week than he formerly did in a year.

As the trends changed Mr. Edmondson changed with them. His Southwest Feed & Hardware has been doing business 35 years, during which time he sold feed and supplies to dairymen, poultry owners and grain farmers.

**SOUTHWEST FEED & HARDWARE** in Wichita, Kansas, pays a great deal of attention to store displays. The display shown at left is tightly packed but uncluttered. Related items are placed adjoining for suggestive sales.

"Then a lot of farm land became city lots," he said, "so I began eyeing this new city trade. We still sell feed, but I started stocking lawn and garden supplies, fertilizers in small packages, herbicides and other products."

Another thing he started was a rental service on roto-tillers, and fertilizer spreaders, and then advertised that people could cut and thread pipe at his store free of charge. All this plus a planned advertising campaign has brought him more business than ever before.

"We still have the farm trade," he said, "but no dealer in a town like this should overlook those hundreds of lawns and gardens, or the suburban farmers who have a few acres."

Mr. Edmondson made a study of soils in his area and what they needed, then set up a sort of free information service. If a gardener wants a certain fertilizer, Mr. Edmondson knows the soils well enough to recommend the proper kind. He spends much time consulting with customers, and often drives to their homes to inspect the soil or plants. For instance, he found that chemical fertilizer alone was not enough on the tight clay soils, so he now sells organic fertilizer to supplement the other kinds.

The rental service has been a good money-maker. He has three roto-tillers that rent for \$5 a day, and an employee helps the customer get started with the equipment. He also rents power lawn mowers and fertilizer spreaders.

"One thing I learned was not to rent poor equipment," he pointed out. "I rent only heavy duty equipment. It gives better satisfaction and the customer won't tear it up."

His free pipe threading service brings many new customers to the store. Usually when they come to cut and thread a few pipes, they buy several dollars worth of other pipe and connections before leaving.

Even though he lost a few farm customers, Mr. Edmondson gained

(Turn to SUBURBS, page 13)

## Slogan with a 'Kick' in It Produces Sales, Customers for Wisconsin Fertilizer Firm

By AL P. NELSON  
Croplife Special Writer

A good slogan is worth its weight in customer attention, as many national advertisers and retail merchants have discovered.

A Wisconsin fertilizer firm, Kickapoo Fertilizer, Madison, Hillsboro and Stevens Point, has a slogan which farmers remember: "KICK UP YOUR YIELDS WITH KICKAPOO."

This slogan is publicized by means of numerous strategically placed billboards in the areas served by the Hillsboro and Stevens Point plants. It is also used in all the rest of the firm's advertising, as well as on its stationery and other printed material.

D. W. Aitken is the firm's general manager, with the main office in the First National Bank Building at Madison. Bob Sherman is manager of the Hillsboro operations and By Baldrige manages the Stevens Point plant.

Mr. Aitken feels that many firms have interesting slogans but do not relate them to actual company merchandising policies.

"Kickapoo Fertilizers, however, does use its slogan effectively," he says. "One piece of advertising we use is a folder containing the fertilizer recommendations of the University of Wisconsin soils department for various types of crops and soils in the state."

"These recommendations indicate clearly that when the farmer ferti-

lizes on the basis of what his crop and soil needs are he really can 'kick up his yields.'"

The recommendations in the folder contain the rate of application and type of fertilizer for sands and sandy loams, silt and clay loams and mucks and peats. There are also some precautions, explanations and remarks listed.

Naturally such a complete list can be very valuable to a modern day farmer who believes in farming scientifically and in making use of the knowledge which experts give him on how to get the best crops and to make a profit.

According to Mr. Sherman, many of the farmers keep the list to study from time to time, and report that it helps them to plan their fertilizer programs.

The folder also lists the various

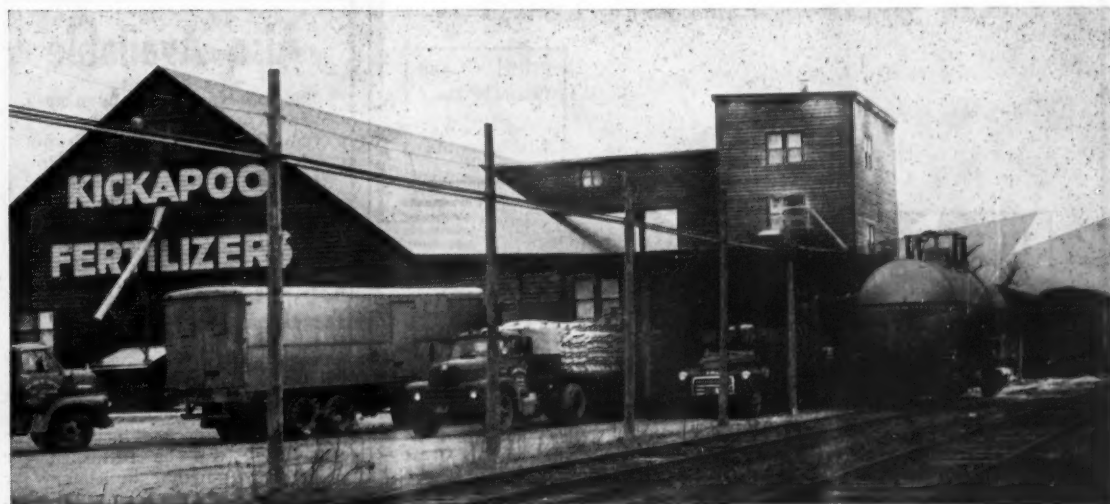
services which the firm offers to farmers through its dealers. These include bagged and bulk fertilizer, bulk spreading, liquid fertilizer for preplant and side dressing; 41% nitrogen solution and 82% anhydrous ammonia.

In this folder, too, the firm mentions some fertilizer industry facts prepared by the National Plant Food Institute which every fertilizer manufacturer or dealer can publicize with good results. Here are some of them:

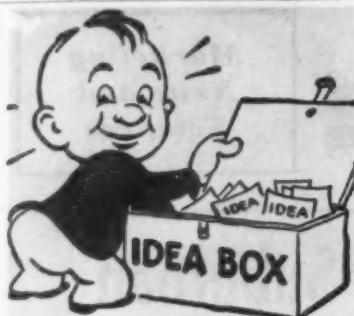
"Fertilizer prices, in terms of plant food content, have advanced only 13% since 1935 and only 7% since 1949.

"Prices of all items farmers buy have advanced 125% in the same period.

(Turn to "KICK," page 15)



THE VIEW at right is of the Kickapoo Fertilizers operation at Hillsboro, Wis. The firm also has a plant at Stevens Point, Wis. According to the management, about 90% of its business is done through dealers.



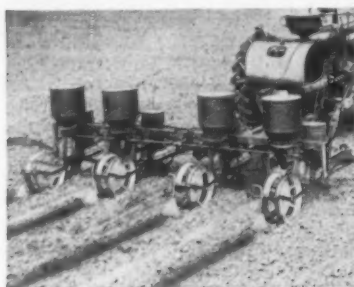
## What's New...

In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

### No. 6876—Pre-Emerge Spray Kit

Tryco Manufacturing Co. announced a pre-emerge spray kit designed to fit all row crop planters to apply spray materials in a band on the crop rows at the same time the seed is being planted. The kit consists of mounting brackets that adjust to any angle to give the proper spray



pattern, a stainless steel line strainer, hoses, clamps and all necessary fittings. A variety of kits are available for two, four and six row planters, the company says, and they are designed for use with presently owned spray equipment. Complete information, literature and application data is available upon request. Check No. 6876 on the coupon and mail.

### No. 6877—Data on Airplane

An illustrated brochure, containing information on the new Grumman Ag-Cat, an agricultural airplane, is being released by Mid-Continent Aerial Sprayers, Inc. According to the company, the plane can be used for seeding, fertilizing, dusting and other agricultural uses. The brochure, which is done in two colors, contains photos of the Ag-Cat in flight and on the ground. Specification and performance tables are included. For copies, check No. 6877 on the coupon and mail.

### No. 6875—Loader for Tractors

An industrial loader specifically designed for International Harvester 240U and 340U tractors has been announced by Superior Equipment Co. There are two models, H-228-I with double acting lift rams, and H-128-I with single acting lift rams. Both models have dual bucket rams, independent hydraulic systems, box type lift arms, tubular frames and pry-out bucket action. The bucket clears 10 ft. 11 in. at full height. The company says a complete variety of attachments including buckets, manure forks, crane, fork lift and front



dozer blades are available. Check No. 6875 on the coupon and mail for details.

### No. 6878—Spray Sales Aids

Point-of-sale posters, information booklets and special can tags are being offered by McLaughlin Gormley King Co. as sales aids for its dairy spray products. The merchandising materials are designed for use at the store levels. The poster notes national publicity which is being given the sprays. The booklet contains a step-by-step program for controlling flies. The snap-on tags give quick point-of-sale identification for sprays containing repellents, the company said. For more information, check No. 6878 on the coupon and mail to this publication.

### No. 6880—Weed and Grass Killer

A pelletized weed and grass killer has been announced by Chipman Chemical Co., Inc. The material, called "Chlorea Granular," contains sodium chlorate, sodium metaborate and monuron. According to the company, this combination kills deep-rooted weeds and grasses and has prolonged soil-surface action on shallow-rooted grasses, weeds and seedling growth. The dry pellets can be applied with any mechanical spreader used for application of granular materials; or may be broadcast by hand, the company says. One pound will treat about 100 sq. ft. of weeds and grass. Check No. 6880 and mail for details.

### Also Available

The following items have appeared in the What's New section of recent issues of CropLife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

### No. 6871—Polymer Tank Linings

Wendnagel & Co., Inc., announces the introduction of a wood tank lining made of various polymers. The linings are heat sealed into a bag liner made to fit the inside of the tank. They can be furnished for round or rectangular tanks, new or already in use, the company says.



According to company literature, fittings are easily connected to the tank with the liner in place. In some cases it is possible to use plain steel or galvanized fittings with a sleeve made of the tank lining running through the fittings and ending with a flange for outside connection. A handbook containing data can be obtained by checking No. 6871 on the coupon and mailing.

### No. 6874—Chemical System Brochure

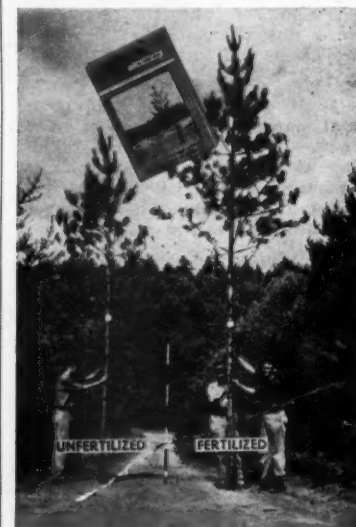
An eight-page brochure, available from Technicon Controls, Inc., describes the AutoAnalyzer, an automated system for continuous chemical analysis. The system, according to company literature, can analyze trace materials down to parts per billion, and continuously record results with an accuracy of 1%. The brochure discusses the unit's use in the laboratory. Principles of the operation of the system are detailed. A complete description of the system's components is included. For copies, check No. 6874 on the coupon and mail.

### No. 6872—Bulk Fertilization Booklet

"Your Land is Different," a booklet which points out advantages of bulk fertilizer use, has been prepared by Highway Equipment Co. The booklet contains tips on restoring plant foods, soil testing, liming, proper application of fertilizer and effective spreading patterns. The booklet also discusses bulk spreading methods and equipment. For a copy, check No. 6872 on the coupon and mail to this publication.

### No. 6870—Forest Fertilization Handbook

American Potash Institute has issued a handbook on forest fertilization. The handbook contains articles by leading world authorities on forestry. Various aspects of research and practices in Europe are discussed and progress in diagnosing nutrient needs of forest trees through soil



testing and leaf analysis is covered. Other subjects handled are: "Forest Fertilization Possibilities in the U.S.," forest fertilization in Germany and forestry research in the U.S. and Canada. Copies are available on request by checking No. 6870 on the coupon and mailing.

Send me information on the items marked:

- |   |  |
|---|--|
| <input type="checkbox"/> No. 6864—Weed Control Bulletin         | <input type="checkbox"/> No. 6871—Polymer Tank Linings       |
| <input type="checkbox"/> No. 6865—Fogging Machine               | <input type="checkbox"/> No. 6872—Bulk Fertilization Booklet |
| <input type="checkbox"/> No. 6866—Application Equipment Catalog | <input type="checkbox"/> No. 6873—Jet Pump Line              |
| <input type="checkbox"/> No. 6867—Suction Strainer              | <input type="checkbox"/> No. 6874—Chemical System Brochure   |
| <input type="checkbox"/> No. 6868—Vacuum Evaporator             | <input type="checkbox"/> No. 6875—Loader for Tractors        |
| <input type="checkbox"/> No. 6869—Crabgrass Preventive          | <input type="checkbox"/> No. 6876—Pre-Emerge Spray Kit       |
| <input type="checkbox"/> No. 6870—Forest Fertilization Handbook | <input type="checkbox"/> No. 6877—Data on Airplane           |
|   | <input type="checkbox"/> No. 6878—Spray Sales Aids           |
|   | <input type="checkbox"/> No. 6880—Weed and Grass Killer      |

(PLEASE PRINT OR TYPE)

NAME .....

COMPANY .....

ADDRESS .....

CLIP OUT—FOLD OVER ON THIS LINE—FASTEN (STAPLE, TAPE, GLUE)—MAIL

FIRST CLASS  
PERMIT No. 2  
(Sec. 349,  
P. L. & R.)  
MINNEAPOLIS,  
MINN.

BUSINESS REPLY ENVELOPE

No postage stamp necessary if mailed in the United States

POSTAGE WILL BE PAID BY—

Croplife

P. O. Box 67

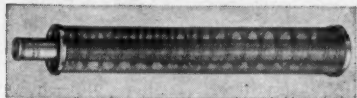
Reader Service Dept.

Minneapolis 40, Minn.



## No. 6867—Suction Strainer

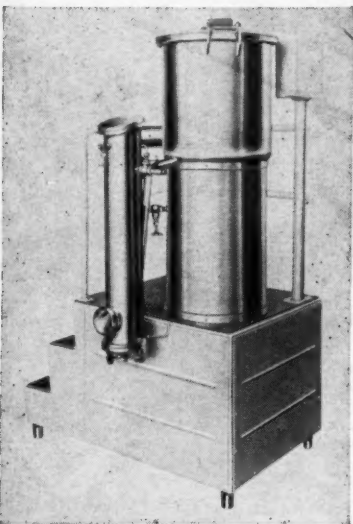
Spraying Systems Co. has introduced the "8060 Suction Strainer" for use on spray rigs. The large capacity strainer provides a 75% greater open screen area, company literature claimed. The item is designed for spray rig applications where a large volume of liquid per minute is to be



sprayed or where the spray rig user wishes to reduce possibility of clogging, the company said. The unit will pass through any standard size steel drum bung hole, the company said, and liquid can be withdrawn to within 1½ in. of tank or drum bottom. For details, check No. 6867 on the coupon and mail.

## No. 6868—Vacuum Evaporator

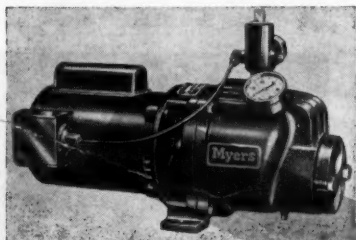
Tower Iron Works, Inc., announces the availability of the "Tower-Anhydro Patented Vacuum Evaporator." The unit is designed for processors of liquid materials where low temperature evaporation is required, the com-



pany said. It is fabricated of stainless steel in both laboratory and production models. According to company literature, the unit is especially suited to processing heat sensitive or foaming materials because of the low operating temperatures possible. For complete details and specifications, check No. 6868 on the coupon and mail to this publication.

## No. 6873—Jet Pump Line

A new series of Olympian jet pumps has been introduced by the F. E. Myers & Bro. Co. The line is offered in three basic models. The Medalist is a convertible, two-stage jet pump, available in ½ to 1 h.p. sizes. The Challenger is a single stage convertible jet pump in ½ to 1 h.p. sizes. The Pacer is available in ¼ and ½ h.p. sizes, either shallow or deep well. All models are also available as



pump-tank units. Complete details on all models can be obtained by checking No. 6873 on the coupon and mailing to this publication.

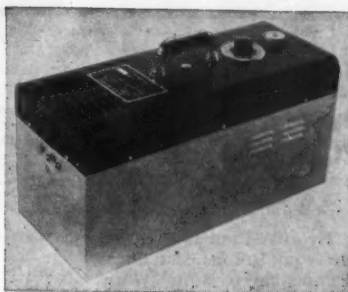
## No. 6869—Crabgrass Preventive

"Chip-Cal Granular," a crabgrass preventive for use on established

turf, has been announced by Chipman Chemical Co., Inc. The granular material is ready for use and can be applied by a mechanical fertilizer spreader or portable seed-sower. According to company literature, the product prevents crabgrass from growing by killing the germinating seed and seedling plants. At the same time, the company says, it will suppress annual bluegrass and chickweed, and certain soil insects and grubs. The material contains a low-line calcium arsenate. Details can be obtained by checking No. 6869 on the coupon and mailing to this publication.

## No. 6865—Fogging Machine

Aero-Master, Inc., announces a newly designed Model A thermal aerosol insecticide fogging machine. The machine provides insecticide fog dispersal, the company says, and a constant temperature control prevents heat breakdown of insecticide



in the thermal pressure chamber. For specifications and further data, check No. 6865 on the coupon and mail to this publication.

## No. 6864—Weed Control Bulletin

Stauffer Chemical Co. has published an illustrated brochure which describes the various applications of its pre-emergence herbicide, Eptam. Included are detailed outlines of the

CROPLIFE, March 2, 1959—11

crops on which the product can be used and the types of weeds controlled. Descriptions of application methods—broadcast, band, pre-emergence and post-emergence—are also covered. Copies of the bulletin can be obtained by checking No. 6864 on the coupon and mailing to this publication.

## No. 6866—Application Equipment Catalog

A 1959 catalog of application equipment for liquid solutions has been prepared by Schelm Brothers, Inc. The catalog contains information, specifications and photos of the company's complete line of equipment. A special section outlines information on accessory equipment. Included among the equipment discussed are air pressure applicators, pump type applicators, applicator tanks and transport tanks. For copies, check No. 6866 on the coupon and mail.

# FARM SUPPLY DEALERS:

You owe it to your profits  
for '59  
to stock Monsanto farm chemicals  
—the quality line that sells itself!  
Write today and learn how  
this nationally-advertised brand  
can help you sell more farm chemicals  
with less time and effort.

**TURN THE PAGE,**

examine this quality line,  
the merchandising...



and send in the coupon today





Doing Business With

## Oscar & Pat



Oscar Schoenfeld hurried along the icy street from his home to the farm supply store and almost fell several times. The reason why he was hurrying was that a button had snapped off his coat as he was getting ready to go to the store, and Minnie took about three minutes sewing on another button while Oscar stewed.

Now, to make up for lost time, Oscar really was putting on the speed, despite the slippery sidewalks. He hurried across the street ahead of a car. The driver put on his brakes and his car slid around. The driver swore loudly, stuck his head out the window and swore at Oscar some more, but Oscar was too wrapped up in his own world to notice.

He arrived at the store at ten minutes to seven, shaking his head. "Ach, I am five minutes late. This is terrible. I have never been so late before."

Oscar always got to the store at 6:45, fifteen minutes before anyone else. He gloried in being the first on the job, so he could mentally sneer at the rest who came at seven, saying to himself, "You see, I am first. Why don't you people get up earlier?"

Sometimes, if Oscar felt like it, he would stand in front of Pat's desk and really tell him off for being a lazy partner, a nincompoop, a dumbkopf who would never last in business if it weren't for him, Oscar. Then Oscar sometimes would imagine a delinquent farmer customer stood before him, and Oscar would give him a lecture on how terrible it was when people didn't pay their bills on time, how they would never get ahead in the world unless they had good credit and that they should never let merchants wait for their money.

Now Oscar opened the door to the store and went in. He stopped short, for he saw what seemed to be a tall rack standing in the aisle, with a white sheet draped over it.

"Ach, what is that?" he exclaimed. "More monkeyshines. That Pat has been working nights. Himmel, what has he been up to now?"

Without even taking off his red checkered mackinaw and battered felt hat, Oscar advanced toward the white sheeted tall rack. Then, with an angry pull he yanked the sheet off.

The sheet came off all right, but a corner of it seemed to catch on something, and the next moment Oscar knew that the rack, if it was that, was falling toward him.

He put out his arms to hold it off. At this moment, the sheet came off entirely and slid to the floor, and Oscar's eyes popped wide open as he saw a naked woman falling toward him.

He started to yell, and the next moment, he staggered with a mannequin in his arms. The shock of the weight made him stumble around trying to maintain his balance and to keep the mannequin from falling.

In those terrifying moments, Oscar saw glassy, heavy eyelashed eyes staring at him, saw white teeth and parted red lips close to his, felt the rounded, plaster bosom against his chest.

"Holy cow, Oscar, whatcha doin'?" called someone.

Ed Middleton, a fertilizer customer, stood in the door staring at the fast stepping, struggling Oscar. "Why, Oscar," he said, "what are you hugging that woman for? Gee, I wouldn't believe it of you, if I didn't see it with my own eyes. What got over you?"

By this time Oscar had recovered his equilibrium, and had gotten the mannequin to stand without falling. Frowning, he brushed himself off as if he had fallen in dust and glowered angrily at the mannequin. "Ach, I am not huggink a woman," he snapped. "That—that was standink here when I opened the door, with a sheet over it. Then, then it fell over on me."

Ed Middleton came closer and began circling the mannequin. "Not bad, Oscar," he said. "Not bad. You sure picked a good one. My wife used to look like that years ago—but not now."

"I did not pick it out!" Oscar

thundered. "Somebody put it here—that, that crazy Irisher, Pat!"

"Well, you have to make up a story, don'tcha. Hey, don't cover it up yet. I'm not through looking."

Oscar had flung the sheet over the mannequin again. "Ach, I am a respectable man. I—I do not want this—this, in our store!"

There was a sound of a door opening, and tall, blue eyed Pat McGillicuddy came in.

"Hey, Pat," cried Middleton with a grin, "you sure missed somethin'. I came in about fifteen minutes ago and found Oscar dancin' around with

this model here. And the sheet was off her, too."

Oscar's face was purple. "The sheet fell off and that, that thing fell on me and almost knocked me over," he choked. "You . . . you brought her in here, didn't you?"

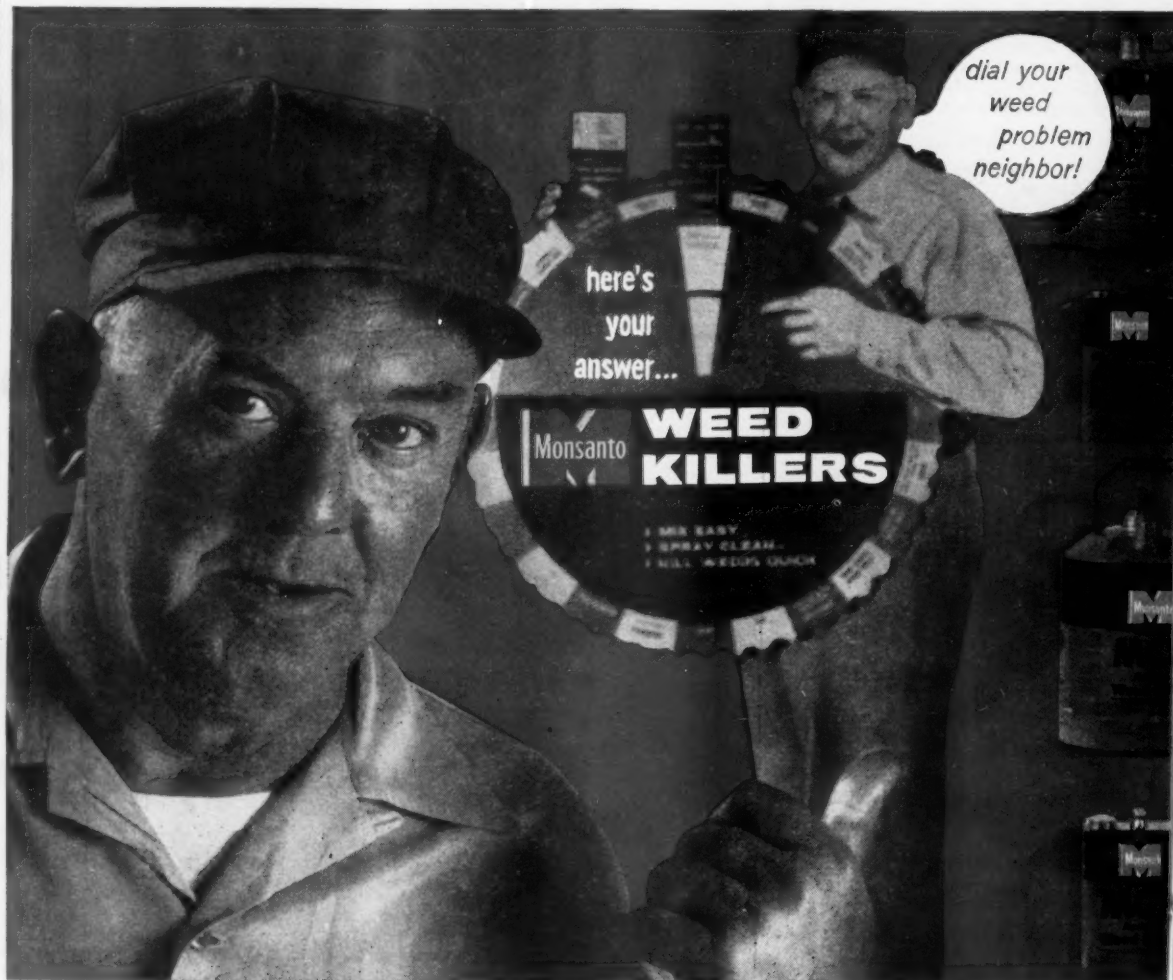
Pat was smiling. "Sure, I did, Oscar. I'm sorry you got so upset. I got a real bargain on her from the Leader Department Store. They're buying new ones. I got her for \$27.50."

"\$27.50!" shrieked Oscar. "Ach, you had to pay that much. We are sellink fertilizer, Irisher, not—not naked women."

"I dunno," Middleton said quizzically. "Selling models like that ain't a bad idea. Maybe you'd do better than selling fertilizer."

"I bought her so we could sell more fertilizer," Pat said patiently. "I can explain that, Oscar."

"Don't explain nottink," Oscar snapped, fussing with the many sharp pencils at his desk, his hands trem-



Meet "Red" Emm! This life-size, lifelike display in your store answers your customers' weed-control questions with a big "dial-the-crop" selector that tells what to use, what to buy.

## FOR YOU, FOR '59: THE WEED-KILLER

### HERE'S WHAT YOU GET:



**MONSANTO'S "RED" EMM ADVERTISING** support in Farm Quarterly, Farm Journal, Successful Farming, American Vegetable Grower, County Agent and Vo-Ag Teacher reaches virtually every farmer, ag. school, and county agent in your local sales territory.



**NEW TAGGED CONTAINERS "TELL" AND "SELL"** Your customer gets complete how-to-use instructions right on the can. Every Monsanto container carries a special tag packet that tells your customer how to apply the weed killer, with easy-to-read, step-by-step directions.



**NEW SPOUT-TOP 5-GALLON CAN** sells your customers on the Monsanto brand. Here's a premium package with a handy pour-spout that won't leak, splatter or splash. With this brand on your shelf, you'll offer the best quality products in easy-to-use containers . . . that mean extra business for you.



## SUBURBS

(Continued from page 9)

bling. "Take her back. Get her out of here, before I go crazy."

"One of our fertilizer salesmen told me that Kickapoo Fertilizers, Hillsboro, Wis., uses a pretty Indian girl mannequin as a trademark, and shows her in county fairs and other exhibits," Pat said. "So I bought this mannequin. I thought Nora could fix up some dresses for her and we could keep her in the store."

"We don't sell dresses either," Oscar thundered. "Ach, take her away."

Pat looked thoughtful. "If Nora dressed her up nice, we could put a sign on her and call her Miss Nitrogen."

"Why not name her Fertilizer Fanny?" suggested Ed Middleton.

Pat shook his head. "No, farmers know that nitrogen is important in growing corn, especially in the corn and hog area. That sign could read 'Miss Nitrogen . . . She makes the corn grow.' Then we could put some bags of fertilizer around her, and

maybe more farmers would look that way and think about buying more nitrogen for their crops."

"Well," Middleton said shrugging his shoulders. "Any excuse like that is just as good as any other for having a good looking model like that around the store. You fellows are smart."

"It is not my idea!" Oscar choked. "He—he's crazy!" He pointed a shaking, stubby finger at Pat.

"I don't know about that," Middleton said thoughtfully. "I wonder if I could get by putting a model like that in my dairy barn just to make my cows feel more beautiful and ladylike so they'd give more milk."

"I wouldn't," Pat said with a smile. "Why not just come down to our store more often to see this Miss Nitrogen display? It'll be safer."

"Safer maybe, but more expensive," Middleton said. "The more I see that display the more I'll think of buying more fertilizer."

"Could be," grinned Pat. "Well, we'll be glad to accommodate you, Ed. I'll be glad to take your first order right now. I was looking over your soil test the other day, and I feel you could up your yield considerably this year with more fertilizer . . ."

### Texas Agent Notes Wrong Fertilizer Use in Area

LAMESA, TEXAS—Most farmers in Dawson County are not yet putting on enough fertilizers, according to tests supervised by Leroy Colgan, county agent. The field tests show the maximum profit return was on an application of 340 lb. of 13-39-0 to the acre.

Above that point there was a diminishing margin between cost and profit. Below this figure the net profit dropped sharply.

The average amount of fertilizer used on the irrigated cotton farms of the county has been estimated at 200 lb. an acre.

others. Being a horse lover, he has built a small but thriving sideline in horse feed and supplies. Weed killers have also picked up in sales, as well as farm hardware and equipment.

Mr. Edmondson has a vacant lot beside the building which would bring several hundred dollars. Yet he figured it worth more as a parking lot for customers. He laid a concrete strip along the side and uses this for displaying merchandise. By having three large side doors, customers can drive up, have feed or other merchandise loaded onto the car or pick-up within a few minutes.

"People want convenience nowadays," he said. "So we stock up on many kinds of merchandise in order to make this a one-stop service store. They also want information on new products, and this we give them freely. They are impatient; they want to be served in a hurry. So we put everything in well-arranged displays with prices prominently posted. And to further reduce time for them, we have plenty of parking space."

Even though sales have doubled within the last few years, Mr. Edmondson watches overhead costs closely. He picks his employees very carefully and does not put a top salesman doing repair work or loading fertilizer. For the common labor duties he hires untrained workmen seasonally.

"We try to have every one of our five to seven employees working where he is best fitted," Mr. Edmondson said. "By spending some extra time studying the employees and running a check sheet on their duties and wages, the average store owner can often eliminate at least one worker without slowing the store's operations."

### Farmers Urged to Study Fertilizer Needs By NPFI Midwest Group

CHICAGO — Farmers looking toward profitable crop yields in 1959 would do well to make plans now for their fertilizer and store it on the farm until planting time, says the midwest division of the National Plant Food Institute.

"Midwestern agronomists report that plant food, where needed, is essential in helping farmers get low-cost yields which mean increased profits per unit of crop production," says NPFI.

"So it is an advantage to have on hand the plant nutrients your soil needs to produce income-building yields of corn, small grains and other crops.

"Farmers who buy their fertilizer early have their pick of the exact grade and amount of fertilizer they want. Moreover, they can get immediate delivery.

"Thus they can save time and costly delays in their cropping work next spring when everyone else wants fertilizer at the same time. They also avoid the risk of scarcities in the rush season when some grades of fertilizer are sometimes hard to get."

Plant food can be safely stored in the barn or some other dry building so it will be in good condition when needed at planting time, NPFI points out. Bags should be placed on 2 x 4's or cribbing above the floor to prevent soaking up moisture. Bags should be stacked about eight high, to avoid caking.



Look at this packaging! Every Monsanto product is the best of its kind on the market. Here's quality that assures you repeat business.

## LINE THAT SELLS ITSELF 4 WAYS!

Only Monsanto brand gives a weed-killer line that sells itself in 4 ways:

Quality products . . . that really work!  
Easy-flow containers . . . handy on the farm!  
Powerful advertising . . . to attract customers!  
An "educated" display . . . an extra salesman to answer questions . . . right in your store!



Learn how THIS BRAND can help you sell more in '59 with less time and effort. Mail the coupon today!

### HERE'S ALL YOU DO TO CASH IN:

- 1 Stock the Monsanto 2,4-D Weed Killer formulations best for the crops and weed problems in your area. Monsanto gives you a choice of seven.
- 2 Stock the Monsanto 2,4,5-T Brush Killers right for your area. Monsanto offers six formulations, including the safest types for use near sensitive crops.
- 3 Put in a "trial" stock of Monsanto Randox® and Vegadex®—two new spray-as-you-plant weed killers that control grassy weeds in corn, soybeans, and vegetables.

.....

Monsanto Chemical Company, Organic Chemicals Division  
Farm Chemicals Department, St. Louis 66, Missouri

Please send me more information on the Monsanto Weed and Brush Killer line.

Name.....

Firm.....

Address.....

City or County..... State.....

.....

## What's Been Happening?

This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on the regional circulation plan up to date on industry happenings.

An eloquent plea for the fertilizer industry to make better businessmen out of its dealers; a first-hand report of recent advancements made in Russian agriculture; the premier showing of a new grassland pasture motion picture, and reports on crop yields in a number of states featured the program of the 11th annual joint meeting of midwestern college agronomists with the fertilizer industry in Chicago Feb. 12-13.

"DDT Trial" plaintiffs, who failed in court to stop mass aerial sprayings, have appealed their case on nine separate points. The 14 Long Island, N.Y., residents filed their appeal with the U.S. Court Oct. 28, but it was not known until recently on what points the plaintiffs made their plea.

Fewer boll weevils took cover in woods trash near cotton fields this winter than last in seven cotton-producing states, according to a U.S. Department of Agriculture survey. The number that survives the winter, combined with weather conditions during the early part of the cotton fruiting period, will determine this insect's potential for damage to the 1959 cotton crop. Lowest average counts for an area were found in south Georgia—145 weevils per acre—and highest in northeastern Louisiana—5,756 per acre.

Merger negotiations between Smith-Douglass Co., Norfolk, Va., and Wilson & Toomer Fertilizer Co., Jacksonville, Fla., first announced last fall, have now been terminated.

Dempster McIntosh, managing director of the Development Loan Fund, has signed an agreement by which the U.S. will lend \$12 million to the Kingdom of Greece to assist in establishing a nitrogenous fertilizer plant. The signing completed action on a transaction approved and announced by the Development Loan Fund last June.

A marked decrease in the average abundance of European corn borers found last fall throughout the U.S., as compared with corn borer numbers found in the fall of 1957, was noted in figures recently released by the U.S. Department of Agriculture. However, 58 additional counties were reported infested for the first time in 1958, according to plant pest control officials of the USDA's Agricultural Research Service.

Collier Carbon and Chemical Corp., Los Angeles, has announced that it is expanding the capacity of its Brea, Cal., ammonia plant by 20%.

Completion of its current program of modernization in its Ontario fertilizer plants has been announced by Canadian Industries, Ltd., Toronto.

South Dakota fertilizer dealers made tentative plans to organize a fertilizer dealers association during the ninth annual fertilizer and soil management short course at South Dakota State College in Brookings. A meeting to set up formal organization had been set for Feb. 23, at Brookings.

The U.S. Department of Agriculture has reported that carryover stocks of pesticides on Sept. 30, 1958, averaged about 10% lower than on the same date in 1957. Larger carryovers of new materials than in 1957, especially organic phosphates and weed killers, were more than offset by shorter inventories of DDT and grain and soil fumigants, the report said.

A credit of \$5 million to an Egyptian fertilizer company to finance purchases of equipment in the U.S. for an expansion of its operations was announced recently by Samuel C. Waugh, president of the Export-Import Bank of Washington.

Installation of new equipment at Fort Worth, Texas, to manufacture liquid weed control materials for railroad use has been announced by Pacific Coast Borax Co., division of United States Borax & Chemical Corp.

In the field of fertilizers, the top need is for research leading to development of fertilizers having controlled rates of nutrient release, said the U.S. Department of Agriculture's soils, water and fertilizer research advisory committee at its annual meeting in Washington recently.

Grasshoppers are likely to be more widespread, but less of a threat to western crop and rangelands in 1959, the U.S. Department of Agriculture announced with the release of figures showing the results of federal-state surveys made last fall.

Negotiations were completed Jan. 15 for the purchase of Deep-Root Fertilizers, Inc., Olathe, Kansas, by the American Agricultural Chemical Co. The announcement was made in New York by C. M. Powell, president of the AAC company.

Construction of a \$500,000 addition to its fertilizer plant in Fort Pierce, Fla., was announced by W. R. Grace & Co. Chemical Division.

General Fertilizer Corp. has filed a charter of incorporation with the corporation department of the secretary of state's office in Dover, Del. Authorized capital stock of the firm is \$10,000.

"We must keep in step with the farmers in helping them solve their problems and supply their needs," Dr. D. E. Wolf, of the Du Pont Co., Atlanta, Ga., told more than 175 persons attending the Pesticide School at North Carolina State College in Raleigh recently.

Construction of SunOlin Chemical Co.'s \$11 million urea plant at north Claymont, Del., is scheduled to start in March, 1959, and should go into operation by the end of the year, announced James I. Harper, SunOlin president. The 13½-acre site is adjacent to Sun Oil Co.'s refinery at Marcus Hook, Pa. Employment opportunities will be provided for about 40 persons.

The Alabama Soil Fertility Society, Inc., held its fourth annual meeting in Montgomery, Ala., and reelected Frank E. Boyd, southern agronomist for the Virginia-Carolina Chemical Corp., as president.

Mississippi Chemical Corp., Yazoo City, Miss., has announced plans for the construction of a \$1.5 million urea plant at Yazoo City, said Owen Cooper, executive vice president. The plant will produce about 100 tons of urea a day.



A NEW TYPE OF PASTURE grass, which produces large gains of beef per acre, is being recommended by the University of Maryland. Called "Midland Bermudagrass," the pasture is based on a summer perennial grass overseeded with rye and fertilized with high nitrogen rates. In grazing trials the results were 709 lb. of beef per acre in 1957 and 750 lb. in 1958. The highest production from any other mixture in the same test was 440 lb. beef an acre. According to university agronomists, an established acre of Midland overseeded with rye and fertilized with 200 lb. of nitrogen should, in a normal season, support one to three 500-lb. steers to the acre.

## SHOP TALK



## OVER THE COUNTER

By Emmet J. Hoffman  
Croplife Marketing Editor

"Diversification has been the key to the growth of our business," says Henry Ross, owner of the Ross Seed & Grain Co., Chickasha, Okla.

Since its founding in 1930 by Mr. Ross, the firm has gradually expanded in all departments. Observers note that the Ross farm store is now one of the largest and most modern in the Chickasha area.

The Ross business is housed in a red brick building 75 ft. by 165 ft. in size. The front one-third is devoted to the farm store and offices. The feed mill and warehouse occupy the rear two-thirds of the building.

The rear of the store opens onto a railroad spur and ingredients and other products can be unloaded directly into the mill. Just behind the tracks are three vacant lots which Mr. Ross bought a few years ago for parking space. He covered the black soil with crushed rock and invited his customers to park there. Many come into the store through the back doors.

Inside the store the merchandise is departmentalized. Mr. Ross says more items can be displayed this way and it increases self-service shopping. Some of the main items are poultry and livestock equipment, sanitation supplies, farm chemicals, garden and lawn equipment, farm hardware, livestock tanks, sprayers and all types of seeds.

Other facilities of the company include an elevator with 18,000 bu. storage space, three warehouses, a mobile feed grinder and mixer and two retail stores in nearby towns.

Mr. Ross is associated with his two sons, Joe and Walter. They are graduates in agriculture from the Oklahoma State University, and are gradually assuming more authority as Mr. Ross nears retirement age.

A major revenue-producer is cleaning and selling seed. Three Clipper cleaners are in operation and most of the seed is sold throughout southwestern Oklahoma. Each year the Ross firm gets out an illustrated catalog which is mailed to seed dealers and farmers.

### Advertising More Important

"I believe advertising is more important than ever before," says Mr. Ross. "But it should be directed and then the results checked where possible. We've tried newspapers, magazines and radio. One of our best, I

think, is direct mail. We have mimeograph and addressograph machines and use them to get out several letters every month."

The firm has several methods to get new customers and keep old ones. Mr. Ross' long tenure in business is one help; keeping up with modern changes is another. He doesn't believe in doing business this year the same way he did last year. The store is continually growing as better selling methods are used.

### Delivery Important

"Our free delivery routes seem essential," he says. "We have three right now. On county maps in my office we have three kinds of pins—red, yellow and blue, with each one representing a route. The pins are placed where customers live. We look at those maps quite often trying to shorten routes or extend them if necessary."

One major problem is the payroll, which Mr. Ross has given serious study. He has nine employees beside his sons and they are a mixture of laborers, skilled workmen and salesmen. He has one serviceman who is qualified to assist farmers on many production problems. Mr. Ross and sons also visit with farmers and help out on management problems.

### Drawings Found Successful

Mr. Ross finds that an old-fashioned ticket drawing is quite successful. Customers register when they make purchases, and once a week the store holds a public drawing. The winning



ticket is worth \$10. If no one holds it, \$5 per week is added.

"That stimulates a lot of interest," says Mr. Ross. "We've had both farm and town people come in here and make purchases when they had been going elsewhere to trade. After they find we are a one-stop farm store, most of them continue trading with us."

There has been a growing trend toward the use of bulk feeds and, also, farm chemical sales have been climbing steadily. Mr. Ross attempts to take advantage of both trends. When a farmer found pests destroying his 170-acre crop last summer, he called the store about it. Because Mr. Ross knew what to recommend and had the insecticides in stock, a profitable sale was made immediately.

"We try to stay abreast of new things," Mr. Ross says. "Right now we are expanding our pet food and garden supply lines. More and more I am finding that farm and city residents have many of the same needs for home, garden and lawn. While most of our trade is with farmers, a little extra effort in dressing up the store and stocking new items has given us a steady increase of city customers."

## Gloomicides

Husbands often come home from work too tired for words—but their wives insist on talking anyway.

★

Three men were driving through the country very late on a pitch black night. Two were in the front seat and the other in the back, half asleep.

Suddenly the driver asked the man in the back to look out the rear window and see who the crazy driver was behind them. For the past 5 minutes he had been trying to let him pass and to top it off, his car had only one light on.

The man looked out the back and then said very excitedly: "No wonder he can't pass you—he's on tracks!"

★

Two friends met for the first time in years. "How are things?" one asked.

"I had a bad year last year," answered his friend. "My factory burned down, and I wasn't insured."

"That's too bad," the first man sympathized. "How is your wife?"

"Dead," came the unhappy reply. "Run over by a bus in December."

"I'm sorry to hear that. But how's the rest of the family?"

"My son got sent to jail."

"Gosh, that's tough." Then, desperately searching for a cheerful subject, "How are you doing yourself?"

"Great!" came the jovial answer. "Business is wonderful—I sell lucky charms, you know."

★

You can get quite a lot out of vegetable gardens if you carefully cultivate the owners.

★

A certain Harvard graduate wrote his parents, both proper Bostonians, that he had just taken a job with radio station WHO. Properly horrified, they sent off a telegram demanding that he give up his job and seek employment with station WHOM.

★

One girl who did not make nursing school this year flunked out on her very first question.

"What is a practical nurse?" she was asked.

"A practical nurse," answered the would-be Florence Nightingale, after some thought, "is one who marries a rich patient."

## "KICK"

(Continued from page 9)

"Fertilizer is a better bargain than ever . . ."

Kickapoo Fertilizers also promotes soil testing. To encourage farmers to have soil tested through the University of Wisconsin, the firm furnishes dealers with neat soil sample bags. These bags give complete instructions on how to take a soil sample and how to prepare it for shipment to a testing laboratory. The bag also has copy which states that Kickapoo Fertilizers will reimburse the farmer up to 25¢ for each sample analyzed if a copy of the invoice and analysis report is sent to Hillsboro or Stevens Point offices.

The firm also supplies dealers with hand-out advertising items for their customers.

Newspaper, magazine and radio ad-

vertising is handled through a Madison advertising firm.

Sales representatives are regularly in contact with dealers and through them, with farmers. The company has booths at county fairs during the summer months and participates in farm progress days and other such farmer gatherings in the state.

Keeping abreast of modern developments in fertilizer technology, both Kickapoo factories are now equipped to produce "krumbelized" grades. This reduces dust to a minimum and makes for easier and more even distribution on the field. The TVA continuous ammoniation process makes possible the production of high analysis nitrogen grades such as 6-24-24

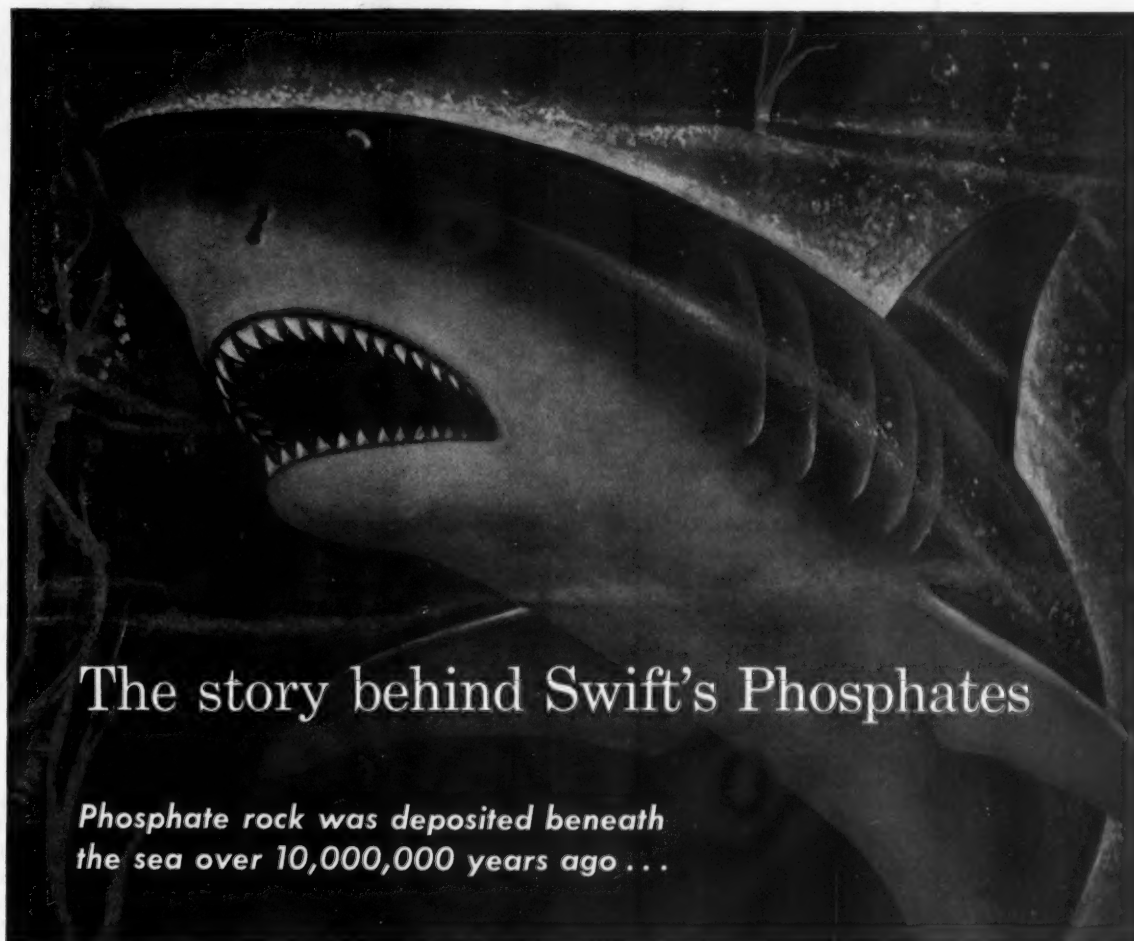
CROPLIFE, March 2, 1959—15

and 12-12-12, while raw materials supplied by TVA go into the production of high-analysis, non-nitrogen grades like 0-15-45 and 0-30-30.

The combination of effective advertising, modern production facilities and service to farmers has helped Kickapoo Fertilizers to become one of the top suppliers of fertilizer to Wisconsin farmers.

### MODEL FARM PROJECT

FRANKFORT, KY.—A model farm program is being planned for Wolfe County, sponsored by state and local agencies and private interests, announced George W. Hubley, Jr., economic development commissioner. According to Mr. Hubley, examples of boosted production through new farming principles will be shown in pilot projects on selected farms. The program is designed to increase productivity and raise income in the area, he said.



## The story behind Swift's Phosphates

Phosphate rock was deposited beneath the sea over 10,000,000 years ago . . .

## Today, Swift technology transforms it into forms you can use most profitably

Fossilized remains of giant prehistoric sharks in Swift's Florida phosphate rock deposits tell us these beds were formed at the bottom of a sea 10 to 15 million years ago.

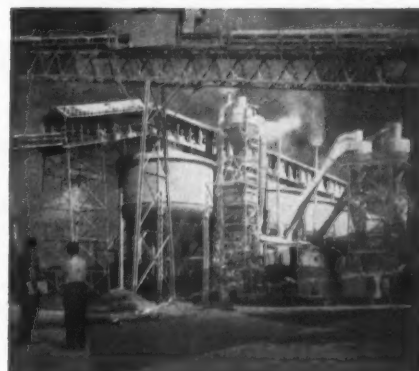
But all Florida pebble phosphate rock had the same beginning. The difference comes much later. It comes in the extra care Swift takes in processing to assure uniformity of grade and grind. It comes in Swift's careful attention to your delivery requirements.

Before you settle on your source of phosphate rock, ground phosphate rock or triple superphosphate, ask to have a Swift Phosphate Center representative outline what extra care can mean to you. Or write for illustrated brochure to SWIFT & COMPANY, Phosphate Center, Bartow, Florida.

THE SERVICE SOURCE FOR ALL YOUR PHOSPHATE NEEDS



P.1



To Serve Your Industry Better

WITH PHOSPHATE ROCK,  
GROUND PHOSPHATE ROCK  
AND PC-47 TRIPLE SUPERPHOSPHATE

# BUG OF THE WEEK

Mr. Dealer—Cut out this page for your bulletin board



## Khapra Beetle

### How to Identify

The adult khapra beetles are small (from 1.8 to 3.0 mm. in length), pale red-brown to dark brown or black in color. Although it is hairy on top, the hairs are often rubbed off which gives the adult a slick appearance. The larvae, as shown above, are yellowish brown, clothed with long, brown hairs. The underside of the body is pale yellow and when viewed from above, the arrangement of segments gives the larvae a ringed appearance.

### Habits of the Beetle

The pest thrives in areas of relatively high temperatures, with the optimum being between 90° and 99° F., although the upper limit for their development has been placed at 104° F. Larvae cease to develop at 46° but on the other hand, can resist temperatures as low as 14° for short periods. Adult females lay up to 126 eggs. The life cycle varies in length from 4 to 6 weeks to several years, depending upon temperature and food supply. There may be as many as 12 generations a year in India, where it is a native. Larvae are highly resistant to starvation and can live for months or even years without food. It has but feeble powers of migration, so its spread has been through avenues of trade.

### Damage Done by Beetle

Stored grain damaged by khapra beetle looks as if it had been infested by the lesser grain

borer. Khapra beetles not only live on grain, but they also contaminate grain by leaving quantities of barbed hairs which are said to be a serious menace to humans if swallowed. Khapra beetle damage to stored grain is complete, as illustrated by the example of a California warehouse which despite its efforts to control the beetle, finally wrote off as a total loss, some 300 tons of grain. In addition, the firm abandoned the warehouse for grain storage purposes.

### Control of Khapra Beetle

The insect itself is not materially more resistant to fumigants and residual insecticide sprays than are many other stored grain pests. But it is still more difficult to control because of the habit of larvae crowding into spaces in the structure of buildings and bins, where it is almost impossible to reach them with sprays or fumigants. Little success has been achieved so far in eradicating this insect from premises that become infested. The establishment of quarantines to restrict movement of grain between areas where the beetle is known to exist and those thought to be free from the pest is regarded as one means of controlling the spread of the insect. The transportation of infested grain, feed, or seed in railway box cars can result in the wholesale contamination of the rolling stock of the country, with the danger that infestation will spread throughout the country, a representative of the U.S. Department of Agriculture has observed.

Photos of khapra beetle furnished Croplife through courtesy of the U.S. Department of Agriculture.





L. Ralph Boynton

### L. Ralph Boynton in New U.S. Potash Post

NEW YORK—L. Ralph Boynton has been appointed sales manager for the U.S. Potash Co. division of U.S. Borax & Chemical Corp., announced John E. Fletcher, vice president.

Mr. Boynton joined the firm in 1940 as a sales representative in its southeastern territory. In 1945 he was named manager of the Atlanta office.

In 1955 Mr. Boynton was appointed southern sales manager and in 1956 was transferred to the New York office as assistant sales manager of the potash division.

### Fertilizer Urged for Michigan Tree Farms

EAST LANSING, MICH.—Michigan tree farmers have been advised by Donald White, of the Michigan State University forestry department, to use fertilizer to help their trees along during the slow growth period in the first year after planting.

He says that experiments using about 2 oz. of complete fertilizer in a ring around each tree in combination with plowing a shallow furrow to remove the sod were conducted last year. The experiments worked out well.

This spring, Mr. White says, some experimental work will be done with a special fertilizer pellet in the hole at the time of planting. These pellets release nutrients slowly and when used in combination with weed killers they should give helpful information on an improved technique.

In Christmas tree plantations, particularly spruce, which may show poor color, the use of fertilizer may make the difference between a first rate tree and a cull.

### MIXTURE RECOMMENDATIONS

BLACKSBURG, VA.—Dr. J. M. Grayson, entomologist at Virginia Polytechnic Institute here, pointed out that for the first time this year, fertilizer-heptachlor mixtures are recommended to control alfalfa weevil. For use on alfalfa only, the following mixtures are approved: 0-10-20, 0-9-27, 0-14-14 and 0-20-20 (all with 4 lb. of heptachlor per ton); and 0-15-30, 0-20-40 and 0-30-30 (all with 8 lb. of heptachlor per ton).

YOU COULD  
USE A  
CLUB  
TO  
KILL  
THOSE  
PESTS



BUT—IT'S HARD ON YOU,  
AND INEFFECTIVE TOO!  
A BROYHILL SPRAYER CAN SAVE THE DAY,  
AND KILL THOSE PESTS THE EASY WAY!  
THE BROYHILL CO.—DAKOTA CITY, NEBR.

### Spraying Ease Called Dwarf Fruit Tree Asset

EAST LANSING, MICH.—Among the reasons that dwarf fruit trees are seen as economical for commercial fruit growers is the ease in spraying.

Based on a 10-year experimental orchard, R. F. Carlson, Michigan State University horticultural scientist, told the February Michigan State University Farmers' Week that dwarf fruit trees provide many conveniences.

"The smaller size of the trees makes picking, pruning and spraying easier and less costly," he declared. Mr. Carlson also pointed out that dwarf fruit trees come into production sooner.

Until recently, Mr. Carlson reminded, there has not been enough "sound" information to advise large acreages of dwarf trees. But in the last ten years, an experimental orchard in East Lansing has yielded

double the amount gleaned from a standard orchard during a similar period. The yield of the dwarf trees was 400 bu. an acre.

### New Texas Weed Control Group Off to Fast Start

PLAINVIEW, TEXAS—The Hale County Weed Control District, organized only a year ago, is proving to be a great asset to farmers in this area. Formed mostly to combat the increasing spread of bindweed, the district applied a total of 312,154 lb. of herbicides, used 64,670 lb. for county road rights-of-way, and submitted 88 applications for bindweed control to the State Highway Department.

The district held 13 weed control demonstrations. As a result of these tests, many farmers who were not aware of the dangers of field bindweed are now planning to eradicate, or at least stop the spread of, the plants.

### Decline Noted in '58 Kentucky Fertilizer Sales

LEXINGTON, KY.—Preliminary figures released by the Kentucky Agricultural Experiment Station revealed that 533,527 tons of fertilizer were sold in the state during 1958, compared with 539,854 tons the previous year.

Mixed fertilizer sales actually rose, showing 438,374 tons sold, compared with 437,793 tons in 1957. The entire decline was in materials sales, with 95,153 tons being sold in 1958 and 102,061 tons sold in 1957.

### FLAMES DAMAGE FIRM

LEXINGTON, KY.—The Weil-Elliott Chemical Co. here, manufacturer of powdered insecticides, was badly damaged by fire recently. The fire broke out in the firm's dust room and burned part of the roof of the concrete-block building. Cause of the fire was not known. The firm was insured.



*Builds traffic... primes profits*

# SOHIGRO<sup>®</sup> UREA

*gives  
spring fertilizer sales  
a real growth boost*

SOHIO HELPS SELL YOUR CUSTOMERS, TOO



You'll find it easier to sell Sohigro Urea because Sohio helps you sell. A series of hard-hitting magazine ads and timely radio spots help you sell by creating a ready-made demand for Sohigro. And free-flowing, prilled Sohigro Urea gives you specific product benefits that make Sohigro ideal for all-season use and volume sales the year 'round.

**Organic-type 45% nitrogen  
fertilizer with deep-feeding  
action gives you  
more benefits to sell**

- All-ammonia nitrogen, yet goes to work fast.
- Moves like magic into the root growth zone.
- "Banks" leach-resistant nitrogen in your soil.
- One application feeds crops nitrogen all season long.

There are a lot of benefits wrapped up in each bag of Sohigro Urea... good, sound reasons why this free-flowing, prilled nitrogen product from Sohio gives fertilizer sales a real growth boost. You'll build more store traffic... prime profits... with a volume leader that helps you move the rest of your line.

Act now. Get set for the big push in spring fertilizer sales! Stock Sohigro Urea. Write or call the "Man from Sohio" for complete information.



*... we're serious about SERVICE at Sohio*

**SOHIO CHEMICAL COMPANY**

FT. AMANDA RD., P. O. BOX 628 • LIMA, OHIO  
Phone: Capitol 5-8015 or wire (TWX call letters LM-497)



Joseph R. Meehan

**PROMOTED**—Joseph R. Meehan has been promoted to senior sales engineer by Minerals & Chemicals Corporation of America, Menlo Park, N.J., it was announced by C. Y. Haas, assistant manager, adsorbents and catalysts sales. He will be in charge of sales and technical service for the company's attapulugus clay products used as carriers, diluents and conditioners in the manufacture of pesticides and other agricultural chemicals. In his new position Mr. Meehan succeeds R. W. Wert, who has transferred to the company's chemical distributor service staff. Mr. Meehan graduated from the Wharton School of the University of Pennsylvania where he received a bachelor of science degree in business administration. Since joining Minerals & Chemicals in 1956, he has been a member of the company's agricultural sales organization.

### Russell W. Nelson Promoted by Shell

**SAN FRANCISCO**—Russell W. Nelson has been named sales supervisor of Shell Chemical Corp.'s Pacific Coast agricultural chemicals district. He succeeds E. F. Bashor who is now district manager. A native of La Grande, Oregon, Mr. Nelson is a graduate of Whitman College and earned a master's degree in zoology and entomology at Washington State in 1939. He joined Shell in 1946 as an entomologist in Sacramento.

### Minnesota 'Hopper Clan' Fewer in Numbers

**ST. PAUL, MINN.**—Most of Minnesota will escape having much of a grasshopper problem this summer.

At least, that's the indication from a survey of adult grasshoppers and eggs conducted late last summer, according to John Lofgren, University of Minnesota extension entomologist, and J. R. Sandve, entomologist for the State Department of Agriculture.

They found that hopper numbers are down from previous years in many counties and that only four areas had "threatening" infestations. These areas included: Mower, eastern Freeborn, northwestern Rock, most of Pipestone, Big Stone, Traverse, parts of Stevens, Swift, Chippewa and Lac qui Parle, and Mille Lacs and part of Morrison, Sherburne and Kanabec counties.

The rest of the state has either "light" or "noneconomic" infestations.

Mr. Lofgren and Mr. Sandve said no severe infestations were found anywhere in the state. And even where they classified the areas as "threatening," they found infestations spotty and varying widely from one farm to the next. They say local weather will determine how serious the grasshopper problem will become in individual areas.

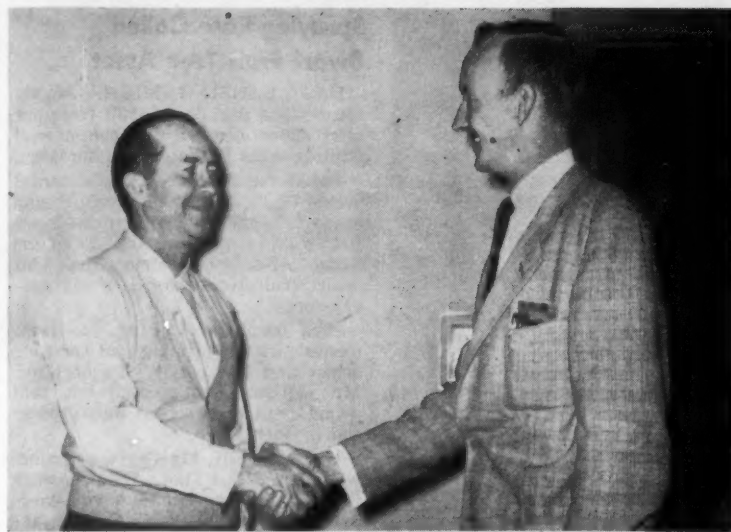
Most of the grasshopper trouble in recent years has been in alfalfa and other forage crops, although the pests attack other crops, too.

### U.S. Industrial Chemicals Names Clifford E. Oman To Plant Manager's Post

**NEW YORK**—Clifford E. Oman has been appointed Tuscola general manager for U.S. Industrial Chemicals Co., division of National Distillers and Chemical Corp., announced Robert H. Cornwell, production vice president.

In his new position, Mr. Oman assumes responsibility for operations at the company's petrochemical plant-complex at Tuscola, Ill.

In 1951, Mr. Oman joined National Distillers as an area superintendent and was serving as assistant plant manager at the time of his new appointment. He holds a bachelor of chemical engineering degree from the University of Minnesota and was previously employed by Elgin Sotner Corp., Atlas Powder Co., and Shell Oil Co.



**WELCOMES MANAGER**—Joe C. Brady, left, general manager of Delta Fertilizer Co. and Helena Cotton Oil Co., Helena, Ark., welcomes A. L. McQuary into the position as manager of Delta Fertilizer Co. Mr. McQuary was previously with Planters Gin Co., Altheimer, Ark. Mr. McQuary is taking over the position that was held by F. L. Enlow, who passed away in late December.

### Gibberellic Acid as Growth Regulator Becoming Reality, Michigan Farmers Told

**EAST LANSING, MICH.**—Gibberellic acid as a new growth regulator for increasing crop production is rapidly becoming a reality, farmers at Michigan State University's Farmers' Week here were told.

Since the first investigations in 1955, which revealed many striking growth responses never before controlled by chemical means, research workers have been surveying the possible use of the chemical as a means of increasing crop production, especially in sub-optimal agricultural areas.

Vegetable crops are showing many positive effects, according to G. R. McVey, MSU horticulturist who addressed the group. Yields of celery, he said, have increased by 40% when sprayed with 15 gm. per acre of the acid.

Variety improvement programs and sorting out of plants susceptible to bolting can be hastened by the acid, he said. Dormancy in a "green" potato may be shortened by a one or two minute dip in an acid solution.

Seed dormancy may also be shortened, he said.

Woody plants are more reluctant to respond, he said. With some species, there is a delay of two or three weeks, or there may be a succession of growth flashes. Other growths of auxiliary parts of the plant may be stimulated.

Elimination of dwarfism, expansion of leaves, increased production of dry matter, acceleration of flowering in biennials and long day annuals, and promotion of uniformity in growth have been other effects of experimentation with the chemical.

Uniformity of flowering and fruiting, increase in flower size, control of fruit size and maturity, reduction or replacement of cold and photoperiodic requirement for growth and flowering, and promotion of normal rates at sub-optimal temperature are other results obtained in controlled circumstances with the promising new chemical, Mr. McVey told the farmers.

### Dr. J. B. Skaptason Sets Up Pesticide Service

**KANSAS CITY**—Dr. J. B. Skaptason has announced the start of Bio-Search and Development Co., 2019 W. 71st Terr., here. He said the firm would feature "lab to label" service in biology, toxicology and chemistry of pesticides and related products.

Bio-Search will have available the services of Industrial Bio-Test Laboratories, Inc., Chicago, in the field of toxicology. Bio-Test is under the direction of Dr. J. C. Calandra and Dr. J. H. Kay.

Dr. Skaptason said that Bio-Search also will have at its disposal the services of William P. ter Horst, Baltimore, in the chemical phases pertinent to pesticide development.

The basic function of Bio-Search and Development Co. is to "assist in the search and development, under code, of chemicals as potential agricultural and industrial pesticides in the general areas of nematocides, insecticides, fungicides, bactericides, herbicides and rodenticides," Dr. Skaptason.

Dr. Skaptason, who received his Ph.D. from Cornell University, formerly was associated with Naugatuck Chemical Co., John Powell & Co., Pittsburgh Agricultural Chemical Co. and Spencer Chemical Co. Shortly after the close of World War II he was for six months chief of the Pesticide and Fertilizer Section of the Office of Price Stabilization in Washington.



Designers and Manufacturers of Finest MULTIWALL, COTTON and BURLAP BAGS • Since 1885

Ask Us!



## LESS 'GLOOM & DOOM'

PORTLAND, ORE.—The Association of American Agricultural College Editors from Oregon, Washington, Idaho and California meeting here was advised to write less of "agriculture's gloom and doom" and spend more time helping farmers and ranchers do a better production job in the future. Richard (Dick) Turner, Portland, vice president, Dawson & Turner advertising agency, told the editors that some 7,000 more mouths are daily reporting for dinner and it might not be too far away before the region's food producers will have trouble meeting the increasing demand for their products.

## Sixty Attend Idaho Fertilizer Meeting

CALDWELL, IDAHO—About 60 fertilizer dealers, distributors and representatives of manufacturers attended the first of four meetings in southern Idaho Feb. 16 conducted by fertilizer representatives and the University of Idaho extension service.

C. D. Bechtolt, Canyon County agent, was chairman. Speakers included: Merle Switzer, an agriculturalist at Washington State College; Roger W. Harder, assistant professor of agronomy at Moscow; C. G. Painter, extension soils specialist of the university from Boise; C. L. Mink, agricultural representative of First Security Bank of Boise; Leland Fife, director, plant industry of the State Department of Agriculture, Boise; Bill Brissenden, market development specialist for J. R. Simplot Co., Pocatello, and Ralph Nyblad, manager, Simplot Soilbuilders, Caldwell.

## Canadian Fertilizer Shipments Reported

OTTAWA—Factory shipments from 44 Canadian plants engaged primarily in manufacturing fertilizers were valued at \$83,807,556 in 1957 compared with \$83,399,218 from 45 plants in 1956. Factories in other industrial classifications produced fertilizers worth \$6,774,479 compared with \$7,168,742 in 1956. In the year, employees increased to 3,011 (2,958 in 1956), salaries and wages to \$12,899,267 (\$11,757,117), and cost of materials used to \$47,134,450 (\$43,295,343).

In 1957, mixed fertilizers weighing 716,387 tons and valued at \$36,573,644 were shipped compared with 697,336 tons worth \$34,042,219 in 1956. Shipments of superphosphate, ammonium nitrate, ammonium phosphate, and ammonium sulphate totaled 930,124 tons worth \$42,375,066 versus 919,892 tons valued at \$42,653,684 in 1956.

## Potash Firm Announces Three New Executives

CARLSBAD, N.M.—Potash Company of America here has announced the promotion of three employees to new executive positions.

Houston N. Clark has been named assistant to the president. For the past two years Mr. Clark has been general superintendent of the company's Dumas, Texas, and Carlsbad operations. He joined the company in 1939.

Replacing Mr. Clark as general superintendent is Raymond R. Knill. In his new position he will be responsible for all surface and underground operations at the Carlsbad plant and the operations of the sulphate plant at Dumas. He joined Potash Company of America in 1945 as safety engineer. Following that he was mine superintendent.

David Rice will assume the position of mine superintendent, in place of Mr. Knill. Mr. Rice, who joined the firm in 1950, was formerly assistant mine superintendent.

## Insecticide-Fertilizer Mix Use Is Indication Of Worth, Say Specialists

CLEMSON, S.C.—Widespread use by farmers of insecticide-fertilizer mixtures and seed treatments indicates their effectiveness for control of the sand wireworm, said entomologists at Clemson Agricultural College here.

A need for greater usage of soil insecticides is indicated by surveys last season which showed some wireworm damage where no soil treatment was given.

The Clemson specialists point out that soil insecticides, either with fertilizer or as a seed treatment, have been applied to 1,169,735 acres over a 10-year period. They explain that doubtless some fields have been treated every year; others only when

row crops are grown, and others only infrequently.

The specialists report that annual estimates from county agents in 11 years show a total of 780,348 acres on which the chlordane-fertilizer mixtures have been used for corn. Fifty acres were treated during 1948; it reached a maximum of 114,177 acres in 1951; and 74,150 acres was the estimate for 1958. No estimates are available for the amount of aldrin or dieldrin, which has been used in recent years.

"Seed treatment of corn and cotton to control the sand wireworm was first begun in 1950," the specialists state. Seed treatments have been used on a total of 389,387 acres according to estimates taken from county agents' reports. Large quantities of melon, soybean, and other seed have also been treated with lindane in the sand wireworm area, and seed treatment has doubtless been a factor in bringing about area control of the sand wireworm.

## Survey Shows No Golden Nematode in New Jersey

TRENTON, N.J.—No trace of the golden nematode has been found in New Jersey, following an intensive survey of potato-growing areas of the state during the past summer and fall, Frank A. Soraci, director, Division of Plant Industry, New Jersey Department of Agriculture, reports.

The federal-state survey, eleventh in an annual series, covered seven major white potato production counties. More than 1,200 soil samples were taken. The samples represented almost 6,000 acres of New Jersey potato land, one third of the total state acreage in potatoes.

The only known infestation of golden nematode in the U.S. occurs in Long Island, where the pest was first discovered more than a decade ago. Since that discovery, yearly surveys for the pest have been made in New Jersey.

# NOW Espesol 5 Registered For Labeling Purposes As A XYLENE-BASE SOLVENT



**Formulator-proven as an economical, non-phytotoxic diluent with dependable uniformity!**

Now registered as a xylene-base solvent, Espesol 5 meets all the demands of formulators who require an economical water-white, xylene-base diluent possessing absolute uniformity. Being a direct unit-produced, rather than a blended product, Espesol 5 provides you with (1) a constant weight (pounds per gallon) (2) uniform flash point (3) consistent aromatic content. With its narrow boiling range, Espesol 5 offers a fast evaporation rate and its high percentage of aromatics provides high solvency power.

Approved by government and college experiment and extension facilities, Espesol 5 is a premium quality, high specification diluent that will let you offer your customers a premium product. Available to you on short notice from all of Eastern States' terminal facilities, Espesol 5 can be ordered in drum, transport, tank car, barge and ship tank lots.

Mail coupon below for complete information.

## EASTERN STATES PETROLEUM & CHEMICAL Corporation

(Formerly Eastern States Chemical Corporation)  
P.O. Box 5008, Houston 12, Texas, Phone Walnut 3-1651  
Chicago Office: Phone Village 8-5410  
New York Office: Phone Circle 7-2520  
Cleveland Office: Phone Edison 3-0188  
Louisville Office: Phone Juniper 3-7634  
Atlanta Office: Phone Cedar 3-3227  
Los Angeles Office: Phone Ryan 1-0278

**U. S. TERMINALS:** Houston, Texas    Chicago, Illinois    East Liverpool, Ohio    Madison, Indiana    Brownsville, Texas  
Savannah, Georgia    Carteret, New Jersey    Los Angeles, California

**EUROPEAN TERMINALS:** Dordrecht (Rotterdam), Netherlands    Antwerp, Belgium    Ludwigshafen, Germany    Livorno (Leghorn), Italy



Eastern States Petroleum & Chemical Corporation  
P. O. Box 5008, Dept. CL 3-29, Houston 12, Texas

Please send me free booklet on the characteristics and properties of insecticide solvents.

NAME \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

## CLIMATE

(Continued from page 1)

adequate fertilization there still remains much to be accomplished.

In view of the fact that farm policies are now being geared to lower support levels—in an effort to free up the farm communities from federal controls and put output from U.S. farms on a competitive price basis with other surplus producing areas around the world—there may be some reasonable hope that more and more farmers may be persuaded to look to the fertilizer industry as the necessary ingredient to bring their per unit costs of production down.

Within the farm communities there has been some apprehension and uncertainty of the effects of the new lower levels of support which USDA ordered for oats, bar-

ley, rye, grain sorghum, corn, flaxseed, soybeans and cottonseed.

Even before these announcements were made USDA officials had feared that cotton acreage would be largely put under the "A" plan of the cotton price support law enacted at the last session of the 85th Congress. Under that "A" plan cotton farmers who stayed within their allotted share of the 16 plus million acre national allotment would obtain 80% of the parity price for cotton for the next two crop years.

Cotton farmers who did not accept the "A" plan were offered an alternative choice of exceeding their allotted portion of the national allotment by 40% but would only receive 65% of parity for their production.

Sponsors of this legislation at the

time it was adopted asserted that as much as 75% of cotton acreage would go into the "B" plan. However, as planting time approaches there has been a wide swing of opinion that the reverse was more likely to be true and that most of the cotton would be produced under higher level of price support of plan "A".

This condition was emphasized in the large cotton land holding of the larger areas of the Southwest where acreage taken out of cotton could be profitably put into cultivation of grain sorghums as a substitute crop under what had heretofore been a most attractive level of price support for that crop.

In other areas such as the Delta, soybeans at the higher level of support which prevailed last year afforded another escape from cotton acreage reduction under tight acreage allotments.

What made the "A" plan so attractive was the opportunity to gain a high level of support from that phase

of the new cotton law and at the same time provide a use outlet for acreage taken out of cotton into either soybeans or grain sorghums.

The decision dropping the price supports for those crops to sharply lower levels is now expected to alter cotton producer decisions and may swing a much larger part of cotton under the "B" plan with its lower level of support but with increased acreage over and above the allotted share of the national allotment.

The information coming from trade sources here indicates the probability that even before the new lower levels for the small grains and oilseed crops were announced cotton farmers may have been looking more favorably to the "B" plan than government and cotton industry sources had anticipated.

To the extent that the "B" plan gains favor among cotton farmers, this condition should result in a much more favorable sales climate for fertilizer and pesticidal chemical materials since the big cotton producers are generally those who better understand the great utility of those materials in reducing costs and bringing out better yields.

In the corn belt trade sources expect fertilizer sales this year will be ahead of those of 1958. This conclusion is based on recent field reports from fertilizer industry sales representatives and may well be further advanced after the new levels of price support are more thoroughly known through that area.

The 1959 corn crop on a national basis will be supported at an average price of \$1.12 bu. subject to regional adjustments, generally those which have prevailed in the past in what has been known as the commercial corn belt. For the old non-commercial corn belt county levels of support are being worked out now at USDA but probably will not be announced for another ten days or two weeks.

However, since the non-commercial corn belt support price in 1958 was approximately \$1.03 bu. the new adjusted levels of support for that area are expected to be above the 1958 rate, which should be an incentive for corn producers there to attempt to increase yields through more appropriate use of fertilizer chemicals and pesticide controls.

The USDA decisions in lowering the levels of price supports for the small grains, corn and oilseed crops hinged primarily on production dislocations which have been occurring in cotton acreage. Higher levels of support stimulated corn production or bean production in cotton land and sorghum production in cotton and wheat acreage taken from production under acreage controls.

USDA wanted to lower those supports to the maximum level they could justify under the law and the recommendations of the President's farm message. In the case for beans and corn acreage the USDA decision tried to reflect a maximum cut in the level of support for beans but not so deep as to divert bean acreage into corn this crop year. Also with the prospect of a larger cotton crop USDA believed that cottonseed production is certain to advance thereby taking some of the demand pressure on soybean requirements for animal feeding.

The reduction in the level of sorghums for 1959 resulted from the heavy takeover of production under loan defaults for the 1958 crop where in USDA came into possession of nearly half of that crop.

The USDA decisions on these small grains and oilseeds are likely to stand through the 1960 crop year since it would be bad politics for USDA to attempt a further cut in a national election year.

**You'll get a better understanding of the fertilizer market from this valuable new book**

## Crop-Use Patterns

of  
**Fertilizer**

in the United States

by

J. R. ADAMS

L. B. NELSON

D. B. IBACH

U.S. DEPARTMENT OF AGRICULTURE

This significant report was compiled by the U.S. Department of Agriculture after thorough studies of fertilizer use in the United States. Crop-Use Patterns covers questions which, until now, have not been adequately answered. Crop-Use Patterns is based on information gathered from every fifth farm surveyed in the most recent U.S. Census . . . providing a broad base of national information.

**Some of the questions answered are:**

what portions of croplands receive fertilizer  
how fertilizer is used among major crops  
how much acreage for each crop is fertilized

**Specific fertilizer uses analyzed are:**

Corn	Tobacco	Wheat
Oats	Cotton	Potatoes
All Crops and Cropland Pasture		
Hay and Cropland Pasture		

All graphically presented with 33 maps and numerous charts.

You'll want your own personal copy of Crop-Use Patterns. And you'll want to keep it handy where you can easily refer to its wealth of practical information about the use of fertilizer.

To obtain your copy of Crop-Use Patterns, fill in and mail the coupon below . . . the supply is limited.

**Only \$2.00**

**Order Today**

**Croplife** 2501 Wayzata Blvd. Minneapolis 40, Minn.

Please send . . . . . copy(ies) of Crop-Use Patterns of  
Fertilizer in the United States

\$2.00 per copy

Name . . . . .

Address . . . . .

City . . . . . Zone . . . . .

State . . . . .





**RESEARCHER HONORED**—H. Burton Musser of State College, Pa., center, pioneer turfgrass researcher and teacher at the Pennsylvania State University, was honored at a recent testimonial dinner at Penn State. Here Mr. Musser receives a gift of a duffel bag from Harold Gilssman of Omaha, Neb., golf course owner and operator. The gift was presented on behalf of the Iowa Golf Course Superintendents Assn. Mr. Musser received gifts from a score of well-wishing state and national turf organizations. He will retire June 30. At left is Mrs. Musser.

## TURFGRASS

(Continued from page 1)

weeds or soils. These problems are inter-related and "what you do to one affects all," he asserted. Weed control is on a strong footing with the establishment of this one principle, he added.

He listed four weed control problems facing turfmen. They were:

1. Improved chemical control.
2. Control of silver crabgrass (*Elymus indica*).
3. Pre-emergence crabgrass control with October to March applications.
4. Effectiveness of low lime calcium arsenate long-term toxicity and effects of granular applications.

Mr. Gallagher and other speakers described crabgrass and pod annua as the number one turfgrass weed problems. Mr. Gallagher and W. H. Daniel, turf specialist with the department of agronomy at Purdue University, discussed studies of arsenic materials for pre-emergence crabgrass control.

Mr. Daniel said arsenic material tested at Purdue averaged over 90% control of crabgrass in pre-emergence treatments. This was for five forms of arsenic material when used at recommended rates on six different test sites. In more than half the tests, recommended rates of four materials gave 98% crabgrass control.

On arsenic toxicity to certain weeds, Mr. Daniel said arsenic in the soil will stop seedling growth of hairy smooth crabgrass; common mouse-eared chickweed; yellow, green fox-tails, and barnyard witchgrass.

Mr. Gallagher listed the following materials as currently recommended for post-emergence crabgrass control: potassium cyanate; phenyl mercuric acetate; sodium arsenite; disodium methyl arsenate, and mono octyl ammonium salt of methyl arsenate.

Penn State studies of the effect of 2,4-D on seedlings of bluegrass, bentgrass, and fescue were discussed by Richard E. Schmidt, turf researcher with the department of agronomy at Virginia Polytechnic Institute. Mr. Schmidt conducted the studies while doing graduate work at Penn State.

The 2,4-D had the greatest effect upon density of the bentgrass, lesser effect on fescue, and least effect on bluegrass, he said. The amine salt of 2,4-D was applied to seedlings at rates of  $\frac{1}{2}$  and 1 lb. actual acid to the acre. Treatments were made when the seedlings were two, four, six, eight and 10 weeks old.

Density of spring-seeded bentgrass

was reduced 20% when treated at 6 weeks of age or younger. The fescue and bluegrass were also reduced 20% in density when treated at 4 weeks of age or younger, he reported.

Fall seeded bentgrass was critically reduced in density regardless of the age at time of treatment. Bluegrass fall treatments reduced turf density significantly only on plots treated at 4 weeks of age.

Houston B. Couch, plant pathologist at Penn State, described basic greenhouse work with different nutrition levels on brown patch, *R. solani*, and dollar spot.

"Brown patch decreased significantly when bentgrass was grown at low nitrogen fertility," Mr. Couch pointed out, but high or low levels of phosphorus did not influence disease reaction.

Mr. Couch mentioned that hundreds of diseases threaten turfgrass in a season. He described the proper use of fungicides and nematocides as "essential as any other form of management." He concluded that an integrated program of turf fertility should include proper use of fungicides.

James R. Bloom, also a plant pathologist at Penn State, observed that nematodes do most of their damage to non-fertilized or non-irrigated areas. This occurs, he said, since turf roots on these areas do not get fertilizer and water in sufficient quantity to protect them from the damaging effects when nematodes feed on roots and stems.

Mr. Bloom suggested the best time to treat turf for nematodes (using a chemical nematocide) is about two weeks after the soil warms up to 70° F. To be successful, the chemical must reach down into the roots. He recommended aerating tools or similar processes to get down into root areas for best nematode control.

## Named Export Manager

LOS ANGELES—William M. Niven has joined American Potash & Chemical Corp., Los Angeles, as export manager, according to an announcement by A. J. Dirksen, eastern general sales manager.

Mr. Niven, who will headquarter at the company's New York offices, previously was export manager and assistant treasurer of International-Rotterdam, Inc., in New York from 1947 until his present affiliation with American Potash & Chemical Corp.

## Services Help Texan Win Cotton Ginner Title

LUBBOCK, TEXAS—Partly as a result of the many services provided his customers, Earl B. Hobbs, of New Deal, Texas, has been named the state's top cotton ginner of the year.

Mr. Hobbs is a third generation ginner, starting over 20 years ago as manager of a gin at Levelland. In 1943 he established his own Hobbs Gin at New Deal.

In discussing how ginning had changed, Mr. Hobbs said many new things had been added. Ginning is better and faster, and the customer is helped with many problems of production and harvesting.

At his own gin Mr. Hobbs provides housing for migrant farm workers who work on customer farms. He also distributes planting seed and hires a group of trained entomologists to inspect cotton fields and arranges for aerial dusting and spraying.

## ARGENTINE SCIENTISTS

NEW HAVEN, CONN.—Two scientists from Argentina have begun a year-long association with the plant pathology staff of the Connecticut Agricultural Experiment Station. They are Abel A. Sarasola and his wife, Maria Amalia Rocca de Sarasola. Mr. Sarasola will investigate the toxins produced by certain fungi and their role in plant disease. He will also investigate the possibility of chemotherapy, using what is learned about these toxins. Mrs. Sarasola will study seed-borne diseases and their control by seed treatments.

REMEMBER TO ORDER

**CHASE BAGS**

There's None Better!

## MY FERTILIZER SALES

INCREASED **55%**

"I have set myself up on quality . . . quality mixed fertilizer and a quality nitrogen . . . John Deere Vitrea. For me, quality and service offer the best approach to selling fertilizer. It gets me out of the rat race of price cutting . . . makes me more profit.

"Quality products bring me more repeat business and at the same time many new customers. This past season my fertilizer sales were up 55%.

"Our soil testing, mapping, farm planning and other services help get customers on a good program . . . once they are on such a program they stay good customers.

"Some of the things I particularly like about handling Vitrea is the excellent service I get on deliveries — furthermore I know I can consistently depend on getting highest quality. And too, Vitrea bags always arrive in good shape with less breakage than other types I have previously handled.

"You can bet Vitrea will play a big part in my profit picture again this year."

RALPH SNELLING  
BOSWELL, IND.



RALPH SNELLING  
SNELLING FARM SERVICE  
BOSWELL, INDIANA



With John Deere Vitrea — 45% nitrogen from urea — you can depend on getting the quality and service that is sure to please your customers and boost your profits.

TODAY, VITREA IS A BETTER BUY THAN EVER!

ORDER NOW!



# Croplife

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Midwestern states.

## INVESTIGATION LOOMS . . .

### Sen. Kefauver Prepares for Attack on Plant Food Trade's 'Monopolistic' Price Policies

WERE IT NOT for the serious overtones of the situation, the prospect of a Senatorial investigation into the pricing policies of the fertilizer industry would be high comedy. But unfortunately, it is not a laughing matter.

Sen. Estes M. Kefauver (D., Tenn.), noted for his previous attacks on various business enterprises, is author of Senate Resolution 57 which authorizes the Subcommittee on Antitrust and Monopoly of the Senate Judiciary Committee to make an investigation of alleged administered prices in the fertilizer industry. The serious part comes from the fact that he has already received an appropriation of \$395,000 for the work of the committee which will investigate not only the fertilizer industry, but also the trades manufacturing drugs, bread, replacement parts for farm machinery, paper boxes, automobile financing, rubber tires, and aluminum.

All of these could well be selected to gain sympathy of large segments of the public (voters) who purchase drugs, bread, automobiles through financing and, of course, the farmers who must have replacement parts for equipment and who buy fertilizers. It doesn't take a great deal of agitating to convince most consumers that someone is holding up prices artificially and Sen. Kefauver is a past master at this sort of thing.

Just why he should pick the fertilizer industry as a whipping boy at this time is a question beyond the comprehension of anyone even remotely acquainted with the workings of the trade. With the present bane of the industry being a soft and crumbly price structure, it requires an exceedingly wild and elastic imagination for anyone in the trade to see any connection whatever with charges of "monopoly" and setting prices in concert to keep them at a high level.

As a matter of fact, recent conversations with manufacturers indicate that prices have deteriorated to such an extent in some states that the firms are merely trading dollars in their sales and in fact fail to break even in some cases. Just how Kefauver and his committeemen will twist this around to make it appear like "administered prices" will be an interesting thing to behold.

Actually, if the Tennessee Senator had a genuine interest in the welfare of farmers and consumers, he might well applaud the record of the fertilizer industry rather than attack it. The trade has provided an abundance of plant food to farmers in all parts of the country, enabling them to produce food at low unit costs. And this has been done with plant food prices so low as to be almost ridiculous.

No other materials nor equipment even approaches fertilizer in terms of its price in relation to its worth. Adequate use of plant food reduces the per unit cost of farm production so that the food and fiber requirements of the U.S. can be produced on fewer acres at lower costs. Fertilizer thus helps farmers to increase their own incomes and provide produce to consumers at bargain prices.

Perhaps Sen. Kefauver has not heard about these facts. It would appear that way from some of the statements he made in his Report No. 27

accompanying S. Res. 57. "The past 2 years' study by the Antitrust and Monopoly Subcommittee shows that there are now many instances of identical pricing where prices are set by the leader and followed by the rest of the industry," he said. "In these instances, classic evidence of collusion is lacking because companies do not appear to need presently to get together to set prices, as they did in the past."

"The Department of Justice and the Federal Trade Commission have indicated that they are helpless to proceed unless concrete evidence of collusion can be produced. This is a frustrating state of affairs. It has resulted in the people being saddled with high prices and in the government, under present antitrust laws, being powerless to do anything about it. Although Congress has never decreed that there must be price competition, nevertheless our free enterprise system cannot survive unless our antitrust laws continue to create an atmosphere conducive to price competition."

For the asking, Sen. Kefauver can get the facts on fertilizer prices from the official records of the U.S. Department of Agriculture. Here's what he'd find out about farm and fertilizer prices as revealed by the USDA index of prices paid by farmers:

	—Index Numbers— '47-'49 Average	Dec. 15, 1958	Present Change
Prices paid by farmers . . . . .	250	308	+23
Prices paid for all production items . . . . .	237	273	+15
Prices paid for fertilizer . . . . .	143	151	+ 6
Plant nutrients per cwt of mixed fertilizer . . . . .	21.96*	30.26*	+38

\*Year July 1 to June 30.

Therefore, the department's index numbers for the period 1947-49 compared with Dec. 15, 1958, show:

Prices Paid by Farmers for All items . . . . .	up 23%
Prices Paid for All Production items . . . . .	up 15%
Prices Paid for Fertilizer . . . . .	up 6%
Plant Nutrients per cwt. of mixed fertilizer . . . . .	up 38%

In other words, compared with prices paid by farmers for all items, fertilizer prices have increased only about one-fourth as fast. Compared with prices paid for production items, the increase has been less than one-half as fast.

Furthermore, during the ten-year period, while fertilizer costs increased only 6%, the primary plant nutrient (actual plant food value) content of mixed fertilizers increased by 38%. Added up, farmers are getting a higher value product at relatively lower cost. This record is eloquent testimony in support of the free play of competition in the fertilizer industry, just as, conversely, a lack of such competition could well have resulted in higher prices.

Farmers and lawmakers do not need a Congressional study nor inquiry to reveal this obvious fact: fertilizer today is one of the real bargains in agriculture.

An appropriation of \$395,000 to help get farmers to use fertilizer at rates recommended by their own state experiment stations would increase farm prosperity and give the taxpayers a better return for their money. To spend the \$395,000 as proposed is an utter waste.



Croplife's Home Office

## Croplife



Member of Business  
Publications Audit

Member of National  
Business Publications

CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is \$5 for one year (\$5 a year outside the U.S.). Single copy price, 25¢.

LAWRENCE A. LONG

Editor

DONALD NETH

Managing Editor

EDITORIAL STAFF—John Cipperly, Washington Correspondent; George E. Swarbrick, Canadian and Overseas Editor; Emmet J. Hoffman, Marketing Editor; James L. Engfer, Editorial Assistant.

ADVERTISING STAFF—Wilfred E. Lingren, Advertising Director; Carl R. Vetter, Advertising Department Manager; Bruce A. Kirkpatrick, Advertising Production Manager; R. Dale Swenson, Promotion Manager.

BUSINESS STAFF—Martin E. Newell, Chairman of the Board of Directors; Milton B. Kihlstrum, President and Treasurer; Wilfred E. Lingren, Executive Vice President; Don E. Rogers, Vice President; Paul L. Dittmore, Vice President; Donald Neth, Secretary; T. A. Gaden, Circulation Manager; James G. Patridge, Assistant Treasurer; Richard Ostlund, Office Manager; Walter O. Buchkosky, Production Superintendent.

#### BRANCH OFFICES

EASTERN STATES—Paul L. Dittmore, Manager; James W. Miller and George W. Potts, Advertising Sales Representatives; Suite 3214, 551 Fifth Ave., New York 17, N.Y. (Tel. Murray Hill 2-2185).

CENTRAL STATES—Don E. Rogers, Manager; Henry S. French, Assistant Manager; Amos W. Standish, Advertising Sales Representative; 2832 Board of Trade Bldg., 141 W. Jackson Blvd., Chicago 4, Ill. (Tel. Harrison 7-0515).

SOUTHWEST—Martin E. Newell, Manager; Thomas E. Letch, Assistant Manager; 612 Board of Trade Bldg., Kansas City 5, Mo. (Tel. Victor 2-1350).

NORTHWEST—Paul A. Anderson, Advertising Sales Representative, P.O. Box 67, Minneapolis 40, Minn. (Tel. Franklin 4-5200).

WASHINGTON CORRESPONDENT—John Cipperly, 604 Hibbs Bldg., Washington, D. C. (Tel. Republic 7-8534).

EXECUTIVE AND EDITORIAL OFFICES—2501 Wayzata Blvd., Minneapolis, Minn. Tel. Franklin 4-5200. Bell System Teletype Service at Minneapolis (MP 179), Kansas City (KC 295), Chicago (CG 340), New York (NY 1-2452), Washington, D.C. (WA 82).

Published by

THE MILLER PUBLISHING CO.

2501 Wayzata Blvd., Minneapolis, Minn.

(Address Mail to P. O. Box 67, Minneapolis 40, Minn.)



Associated Publications—The Northwestern Miller, The American Baker, Farm Store Merchandising, Feedstuffs, Milling Production.



# MEETING MEMOS

April 1-3—Twenty-fourth Annual Chemurgic Conference, Congress Hotel, Chicago, Ill.  
 April 8-11—Symposium on forest soils, Louisiana State University, Baton Rouge, La.  
 Dec. 9-11—International Crop Protection and Pest Control Exhibition, Seymour Hall, St. Marybone, London, England.

Meeting Memos listed above are being listed in this department this week for the first time.

March 3-4—Western Cotton Production Conference, Hotel Westward Ho, Phoenix.

March 4-5—Annual Weed and Insect Conference, Fonner Park, Grand Island, Neb.

March 17—Western Agricultural Chemicals Assn. spring meeting, Hotel Miramar, Santa Barbara, Cal. C. O. Barnard, executive secretary.

March 19-20—Oregon Feed and Seed Dealers Assn., annual convention, Multnomah Hotel, Portland, Ore.

March 25-27—North Central Branch, Entomological Society of America, Annual Meeting, Neli House Hotel, Columbus, Ohio, C. W. Wingo, 102 Whitten Hall, University of Missouri, Columbia, Secretary-Treasurer.

April 29-30—Symposium on transportation, regulation and packaging of chemical products, sponsored by the Manufacturing Chemists' Assn., Engineering and Scientific Center, Cleveland, Ohio.

June 9-10—Seventeenth Annual Convention of the Association of Southern Feed and Fertilizer Control Officials, Velda Rose Motel, Hot Springs, Ark.; Maurice Rowe, Virginia Department of Agriculture, 1122 State Office Bldg., Richmond 19, Va.

June 14-17—National Plant Food Institute, Annual Convention, the Greenbrier, White Sulphur Springs, W. Va.

June 29-30—Seventh Annual California Fertilizer Conference, University of California campus, Davis, Cal. J. H. Nelson and Earl R. Mog, co-chairmen.

July 7-9—Regional Fertilizer Conference, co-sponsored by the Pacific Northwest Plant Food Assn. and state colleges and universities in the area, Winthrop Hotel, Tacoma, Wash.

July 20—Annual Kentucky Fertilizer Conference, Guignol Theater, University of Kentucky campus, Lexington, Ky.

Oct. 14-16—Pacific Northwest Plant

Food Assn. Annual Convention, Chinook Hotel, Yakima, Wash.

Oct. 21-23 — National Agricultural Chemicals Assn., 26th annual meeting, French Lick-Sheraton Hotel, French Lick, Ind., Lea S. Hitchner, executive secretary.

Nov. 4-6—Fertilizer Industry Round Table, Mayflower Hotel, Washington, D.C. Dr. Vincent Sauchelli, National Plant Food Institute, chairman.

Nov. 9-11 — California Fertilizer Assn., 36th annual convention, Fairmont Hotel, San Francisco.

Nov. 16-20 — National Aviation Trades Assn., 20th annual convention, New Orleans, La.

## Texas Gulf Sulphur Co. Reports Revenue Decline

NEW YORK—Gross revenue from sales of Texas Gulf Sulphur Co. in 1958 amounted to \$57,057,274 as against \$66,888,847 in the previous year, according to a preliminary report.

Net earnings for the year were \$13,382,967, equivalent to \$1.34 per share on the 10,020,000 common shares outstanding. This compares with 1957 net income of \$17,557,369, or \$1.75 per share on the same number of shares.

In releasing the report, Fred M. Nelson, chairman, said the decline in earnings resulted from a reduction of 9% in the volume of tons sold and a 10% lower price for sulphur that prevailed throughout the year. Another contributing factor was an increase in unit costs as a result of lower production volume, he stated.

"The pattern of 1958 business," said Mr. Nelson, "was mixed, with the year ending on an encouraging up-trend in sales." Gross revenue from sales in the final quarter of 1958 amounted to \$16,729,210, compared with \$14,479,227 reported for the corresponding period of 1957. Net income for the three months ended Dec. 31, 1958 totaled \$3,358,050, equal to 34¢ per share, compared with \$3,795,026, or 38¢ per share in the like period a year ago.

Commenting on prospects for the year ahead, Mr. Nelson said the company expects an increase in tonnage shipments of sulphur for 1959. "Our earnings, however, will be determined to a large extent by competitive conditions in the world sulphur market."

## WEED CONTROL CIRCULAR

FARGO—"Chemical Weed Control in Field Crops" is the title of a circular recently published by North Dakota Agricultural College. Written by L. A. Jensen, extension agronomist, and Dr. E. A. Helgeson, botanist, the circular gives 1959 recommendations for weed control.

# Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15c per word; minimum charge \$2.25. Situations wanted, 10c a word; \$1.50 minimum. Count six words of signature, whether for direct reply or keyed card this office. If advertisement is keyed, care of this office, 20c per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Advertisements of new machinery, products and services accepted for insertion at minimum rate of \$10 per column inch.

All Want Ads cash with order.

## HELP WANTED

MONSANTO IS SEEKING EXPERIENCED (3-10 years) fertilizer salesman for Illinois-Wisconsin-Iowa area. Starting salary commensurate with experience, plus car and expenses. Send all replies in confidence to William R. Hayes, Monsanto Chemical Co., St. Louis, Mo.

FERTILIZER SALES MANAGER — Established multi-plant fertilizer company, central states area, wishes to employ man 30 to 45 who has fertilizer sales experience for position of plant sales manager. Send background resume with recent photograph. All information confidential. Address Ad No. 4501, Croplife, Minneapolis 40, Minn.

## AGRONOMIST

Opportunity in Fertilizer Sales Division for experienced Agronomist to conduct dealer, customer and sales agronomic program for Midwest area. Prefer agricultural graduate with experience as county agent, in farm management or with feed company plus ability to write and speak effectively. Competitive salary, transportation and expenses furnished plus usual company benefits. Send resume of education and experience to:

Employment Coordinator  
Personnel Department

VIRGINIA-CAROLINA CHEMICAL CORP.  
401 East Main Street  
Richmond, Virginia

## Named Chief Engineer

DORCHESTER, MASS.— Alfred T. Glynn has been named chief engineer of Sturtevant Mill Co. here, filling the post vacated last October by the death of Edward Ingle.

Mr. Glynn had served as interim

## MISCELLANEOUS

### BRUSH AND WEED KILLER

KILL SUBMERSED water weeds which foul up motor propellers, tangle fishing gear and choke irrigation ditches with R-H Granular Weed Knap. Inexpensive, easy to use, sure results. For details write Rescor-Hill Corporation, Box 34CL, Jacksonville, Ark.

KILL BRUSH at low cost with amazing R-H Brush Knap. Will not injure grasses, grains, cattle, or other animals. See your dealer, or write Rescor-Hill Corporation, Box 34CL, Jacksonville, Ark.

## MACHINERY WANTED

WANTED USED MACHINERY—WE WANT a good used 327 St. Regis valve packer. Phone Morris, Illinois 609. Gilchrist Plant Food, 526 W. Washington St., Morris, Ill.

## BUSINESS OPPORTUNITIES

LARGE INCOME OPPORTUNITY—DEALERS—Distributors. Earn \$10,000 up yearly. Take over your area. Nationally advertised Gro-Green Liquid Fertilizer Concentrates. Big sales program. No experience necessary. Complete training. Campbell Co. (Est. 1928), Rochelle 40, Ill.

**Croplife** Want Ads...  
Get Results

chief engineer prior to his appointment in January.

He joined Sturtevant in 1916, directly from high school. In 1918, he attended Tufts College of Engineering for further education, after which he returned to Sturtevant.

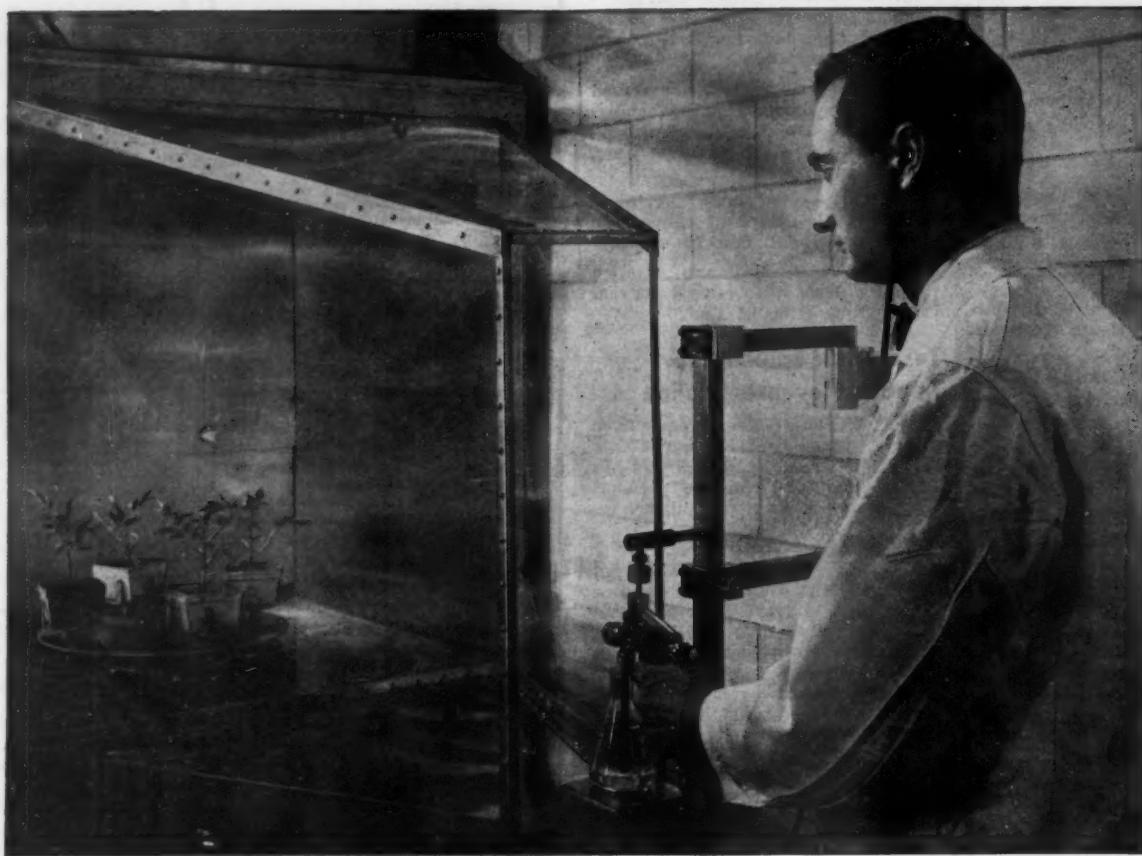
# INDEX OF ADVERTISERS

The index of advertisers is provided as a service to readers and advertisers. The publisher does not assume any liability for errors or omissions.

Abrasion & Corrosion Eng. ....	Kraft Bag Corp. ....
Allied Chemical Corp., Nitrogen Div. ....	McCall, Tom, and Associates, Inc. ....
Amchem Products, Inc. ....	Maas, A. R., Chemical Co. ....
American Potash & Chemical Corp. ....	Merck & Co. ....
American Potash Institute ....	Meredith Publishing Co. .... 5
Armour Fertilizer Works ....	Meyer, Wilson & Geo., & Co. ....
Ashcraft-Wilkinson Co. ....	Mid-South Chemical Corp. ....
Baker, H. J. ....	Miller Chem. & Fert. Corp. ....
Baughman Manufacturing Co., Inc. ....	Miller Publishing Co. ....
Bemis Bro. Bag Co. ....	Mississippi River Chem. Corp. ....
Blue, John, Co. ....	Monsanto Chemical Co. .... 6, 7, 11, 12, 13
Bradley & Baker ....	National Distillers & Chemical Corp. ....
Broyhill Company, The .... 17	National Potash Co. ....
Burgess Publishing Co. ....	Naugatuck Chemical Div., U. S. Rubber Co. ....
Chantland Mfg. Co. ....	Niagara Chemical Division ....
Chase Bag Co. .... 21	Northern Peat Moss ....
Chemagro Corp. ....	Northwest Nitro-Chemicals, Ltd. ....
Chemical Eng. Serv. Div. of ....	Olin Mathieson Chemical Corp. .... 4
Manitowoc Shipbuilding, Inc. ....	Pacific Coast Borax Co. ....
Chemical Insecticide Corp. ....	Penick, S. B., & Co. ....
Clover Chemical Co. ....	Pennsalt of Washington Div. of ....
College Science Publishers ....	Pennsalt Chemical Co., a subsidiary of ....
Collier Carbon & Chemical Corp. ....	Phillips Petroleum Co., a subsidiary of ....
Commercial Solvents Corp. .... 8	Phillips Petroleum Co. ....
Consolidated Mining & Smelting Co. ....	Potash Company of America .... 3
Crown Zellerbach Corp. ....	Power Curve Conveyor ....
Davison Chemical Co. ....	Raymond Bag Co. ....
Deere, John, & Co. .... 21	Roberts Chemicals, Inc. ....
Dampster Mill & Mfg. Co. ....	Sackett, A. J., & Sons ....
Diamond Alkali Co. ....	Shattuck, S. W., Chemical Co. ....
Dow Chemical Co. ....	Shell Chemical Corp. ....
E. I. du Pont de Nemours & Co., Inc. ....	Simonsen Mfg. Co. ....
Deval Sulphur & Potash Co. ....	Sinclair Chemicals, Inc. ....
Eastern States Petroleum & Chem. Corp. .... 19	Smith-Douglass Co., Inc. ....
Emulsol Chemical Corp. ....	Southern Nitrogen Co. ....
Escambia Chemical Corporation ....	Southwest Potash Corp. ....
Flexo Products, Inc. ....	Spencer Chemical Co. ....
Food Machinery & Chemical Corp. ....	Spraying Systems Co. ....
Frontier Chemical Co. ....	Standard Oil Co. ....
Gates Rubber Co. ....	Stapan Chemical Co. ....
Geigy Agric. Chemicals ....	Stewart-Warner Corp. ....
Grace Chemical Co. ....	Successful Farming .... 5
Grand River Chemical Div. of Deere & Co. .... 21	Swift & Co. .... 15
Hahn, Inc. ....	Tennessee Corp. ....
Hanson Equipment Co. ....	Texas Gulf Sulphur Co. ....
Harshaw Chemical Co. ....	Union Bag-Camp Paper Corp. ....
Henderson Mfg. Co. ....	U. S. Borax & Chem. Corp. ....
Hercules Powder Co. .... 24	U. S. Industrial Chemicals Co. ....
Highway Equipment Co. ....	U. S. Phosphoric Products Division ....
Hough, Frank G., Co. ....	U. S. Potash Co. ....
Inland Chemical Corp. ....	U. S. Rubber Co., Naugatuck Chem. Div. ....
International Minerals & Chemical Corp. ....	U. S. Steel Corp. ....
Johns-Manville Corp. ....	Velsicol Chemical Corp. ....
Jones, Robin, Phosphate Co. ....	Wisconsin Eqt. & Distr. Co. ....
Kalo Inoculant Co. ....	
Kent, Percy, Bag Co. .... 18	

## CALENDAR FOR 1959-60

MARCH	APRIL	MAY	JUNE
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7	1 2 3 4	1 2 3 4 5 6 7 8	1 2 3 4 5 6
8 9 10 11 12 13 14	5 6 7 8 9 10 11	9 10 11 12 13 14 15	7 8 9 10 11 12 13
15 16 17 18 19 20 21	12 13 14 15 16 17 18	16 17 18 19 20 21 22	14 15 16 17 18 19 20
22 23 24 25 26 27 28	19 20 21 22 23 24 25	23 24 25 26 27 28 29	21 22 23 24 25 26 27
29 30 31	26 27 28 29 30	30 31	28 29 30
JULY	AUGUST	SEPTEMBER	OCTOBER
1 2 3 4	1 2 3 4 5 6 7 8	1 2 3 4 5	1 2 3
5 6 7 8 9 10 11	9 10 11 12 13 14 15	6 7 8 9 10 11 12	4 5 6 7 8 9 10
12 13 14 15 16 17 18	16 17 18 19 20 21 22	13 14 15 16 17 18 19	11 12 13 14 15 16 17
19 20 21 22 23 24 25	23 24 25 26 27 28 29	20 21 22 23 24 25 26	18 19 20 21 22 23 24
26 27 28 29 30 31	30 31	27 28 29 30	25 26 27 28 29 30 31
NOVEMBER	DECEMBER	JANUARY	FEBRUARY
1 2 3 4 5 6 7	1 2 3 4 5	1 2 3 4 5 6 7 8	1 2 3 4 5 6
8 9 10 11 12 13 14	6 7 8 9 10 11 12	9 10 11 12 13 14 15	7 8 9 10 11 12 13
15 16 17 18 19 20 21	13 14 15 16 17 18 19	16 17 18 19 20 21 22	14 15 16 17 18 19 20
22 23 24 25 26 27 28	20 21 22 23 24 25 26	23 24 25 26 27 28 29	21 22 23 24 25 26 27
29 30	27 28 29 30 31	30 31	28 29



## HERCULES RESEARCH— First Step Toward Improved Pesticides

From the Hercules Research Center and Agricultural Chemicals Laboratories come an ever increasing number of products that contribute to more productive farming and increased comfort for leisure hours. Here are the established members of the Hercules family: *Toxaphene* agricultural insecticide; *Thanite*® for oil base and aerosol insecticides; *Delnav*\* phosphate pesticide; *meta Delphene*® insect repellent; *Delrad*® algicide.

Today in the laboratories research continues on the products that will join them in the future. But before they become available you can be sure that thousands of compounds have been carefully screened and extensive tests conducted in the field because only the best is good enough to meet the standards of Hercules research. That's why you can look to Hercules for leadership in the development of insecticides, fungicides, and herbicides.



\*Trademark

Agricultural Chemicals Division, Naval Stores Department

**HERCULES POWDER COMPANY**

INCORPORATED

900 Market Street, Wilmington 99, Delaware



NX50-2



